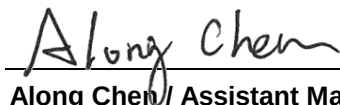


FCC C2PC Test Report

FCC ID : HDCWLAN203XF1
Equipment : 11ac 5G radio module
Model No. : PCE4551AH-BS
Brand Name : Adtran
Applicant : Adtran
Address : 901 Explorer Boulevard Huntsville, AL
35806-2807 United States
Standard : 47 CFR FCC Part 15.407
Received Date : May 13, 2016
Tested Date : May 30 ~ Jul. 06, 2016

We, International Certification Corp., would like to declare that the tested sample has been evaluated and in compliance with the requirement of the above standards. The test results contained in this report refer exclusively to the product. It may be duplicated completely for legal use with the approval of the applicant. It shall not be reproduced except in full without the written approval of our laboratory.

Reviewed by:



Along Chen / Assistant Manager

Approved by:



Gary Chang / Manager



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Release Record

Report No.	Version	Description	Issued Date
FR651301-01AN	Rev. 01	Initial issue	Jan. 18, 2017

Summary of Test Results

FCC Rules	Test Items	Measured	Result
15.207	Conducted Emissions	[dBuV]: 0.393MHz 34.17 (Margin -13.82dB) - AV	Pass
15.407(b) 15.209	Radiated Emissions	[dBuV/m at 3m]: 5350.00MHz 52.99 (Margin -1.01dB) - AV	Pass
15.407(a)	Emission Bandwidth	Meet the requirement of limit	Pass
15.407(e)	6dB bandwidth	Meet the requirement of limit	Pass
15.407(a)	RF Output Power	Max Power [dBm]: 5250~5350MHz: 22.85 5470~5725MHz: 22.60	Pass
15.407(a)	Peak Power Spectral Density	Meet the requirement of limit	Pass
15.407(g)	Frequency Stability	Meet the requirement of limit	Pass
15.203	Antenna Requirement	Meet the requirement of limit	Pass

1 General Description

1.1 Information

This report is issued as a FCC Class II Permissive Change. The modification is only concerned with adding 5250~5350MHz and 5470~5725 MHz band by software setting.

1.1.1 Specification of the Equipment under Test (EUT)

RF General Information					
Frequency Range (MHz)	IEEE Std. 802.11	Ch. Freq. (MHz)	Channel Number	Transmit Chains (N _{TX})	Data Rate / MCS
5250-5350 5470-5725	a	5260-5320 5500-5700	52-64 [4] 100-140 [8]	3	6-54 Mbps
5250-5350 5470-5725	n (HT20)	5260-5320 5500-5700	52-64 [4] 100-140 [8]	3	MCS 0-15
5250-5350 5470-5725	n (HT40)	5270-5310 5510-5670	54-62 [2] 102-134 [3]	3	MCS 0-15
5250-5350 5470-5725	ac (VHT20)	5260-5320 5500-5700	52-64 [4] 100-140 [8]	3	MCS 0-9
5250-5350 5470-5725	ac (VHT40)	5270-5310 5510-5670	54-62 [2] 102-134 [3]	3	MCS 0-9
5250-5350 5470-5725	ac (VHT80)	5290 5530	58 [1] 106 [1]	3	MCS 0-9

Note 1: RF output power specifies that Maximum Conducted Output Power.
 Note 2: 802.11a/n/ac uses a combination of OFDM-BPSK, QPSK, 16QAM, 64QAM, 256QAM modulation.
 Note 3: The device has disabled the 5600-5650MHz band by S/W setting.

1.1.2 Antenna Details

Ant. No.	Model	Type	Operating Frequency (MHz) / Gain (dBi)		Connector
			5250~5350	5470~5725 MHz	
1	External antenna	Dipole	5.5	5.5	RPSMA
2	Internal antenna	PIFA	6	6	UFL

1.1.3 Power Supply Type of Equipment under Test (EUT)

Power Supply Type	3.3Vdc from host
-------------------	------------------

1.1.4 Accessories

N/A

1.1.5 Channel List

802.11 a / HT20 / VHT20		HT40 / VHT40	
Channel	Frequency(MHz)	Channel	Frequency(MHz)
52	5260	54	5270
56	5280	62	5310
60	5300	102	5510
64	5320	110	5550
100	5500	134	5670
104	5520	VHT80	
108	5540	58	5290
112	5560	106	5530
116	5580	---	---
132	5660	---	---
136	5680	---	---
140	5700	---	---

1.1.6 Test Tool and Duty Cycle

Test Tool	ART2-GUI, Version: 4_9_51		
Duty Cycle and Duty Factor	Mode	Duty cycle (%)	Duty factor (dB)
	11a	98.26%	0.08
	VHT20	98.14%	0.08
	VHT40	94.76%	0.23
	VHT80	90.40%	0.44

1.1.7 Power Setting

External Dipole antenna

For Frequency band 5250~5350 MHz		
Modulation Mode	Test Frequency (MHz)	Power Set
11a	5260	13.5
11a	5300	13.5
11a	5320	13.5
HT20	5260	14
HT20	5300	14
HT20	5320	14
HT40	5270	18
HT40	5310	15
VHT20	5260	14
VHT20	5300	14
VHT20	5320	14
VHT40	5270	18
VHT40	5310	15
VHT80	5290	11

For Frequency band 5470~5725 MHz		
Modulation Mode	Test Frequency (MHz)	Power Set
11a	5500	13.5
11a	5580	13.5
11a	5700	13.5
HT20	5500	14
HT20	5580	14
HT20	5700	14
HT40	5510	17
HT40	5550	17.5
HT40	5670	17.5
VHT20	5500	14
VHT20	5580	14
VHT20	5700	14
VHT40	5510	17
VHT40	5550	17.5
VHT40	5670	17.5
VHT80	5530	13.5

Internal PIFA antenna

For Frequency band 5250~5350 MHz		
Modulation Mode	Test Frequency (MHz)	Power Set
11a	5260	13
11a	5300	13
11a	5320	13
HT20	5260	13.5
HT20	5300	13.5
HT20	5320	13.5
HT40	5270	17.5
HT40	5310	13
VHT20	5260	13.5
VHT20	5300	13.5
VHT20	5320	13.5
VHT40	5270	17.5
VHT40	5310	13
VHT80	5290	11

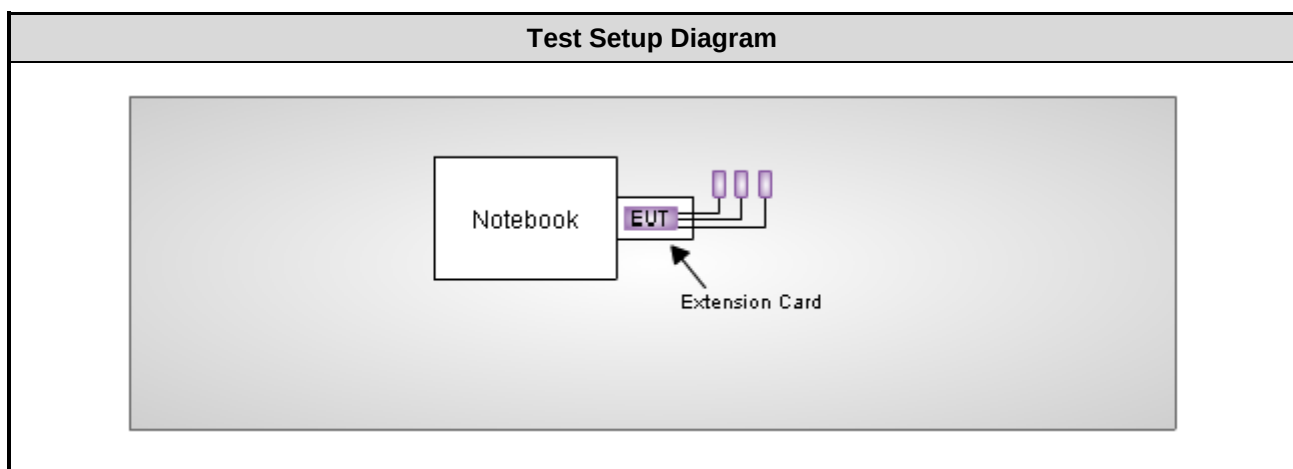
For Frequency band 5470~5725 MHz		
Modulation Mode	Test Frequency (MHz)	Power Set
11a	5500	13
11a	5580	13
11a	5700	13
HT20	5500	13.5
HT20	5580	13.5
HT20	5700	13.5
HT40	5510	15.5
HT40	5550	17
HT40	5670	17
VHT20	5500	13.5
VHT20	5580	13.5
VHT20	5700	13.5
VHT40	5510	15.5
VHT40	5550	17
VHT40	5670	17
VHT80	5530	13.5

1.2 Local Support Equipment List

Support Equipment List					
No.	Equipment	Brand	Model	FCC ID	Signal cable / Length (m)
1	Notebook	DELL	Latitude E6430	DoC	---
2	Extension Card	---	---	---	---

Note: No.2 was provided by applicant

1.3 Test Setup Chart



1.4 The Equipment List

Test Item	Conducted Emission				
Test Site	Conduction room 1 / (CO01-WS)				
Instrument	Manufacturer	Model No.	Serial No.	Calibration Date	Calibration Until
EMC Receiver	R&S	ESCS 30	100169	Oct. 21, 2015	Oct. 20, 2016
LISN	SCHWARZBECK	Schwarzbeck 8127	8127-667	Nov. 13, 2015	Nov. 12, 2016
RF Cable-CON	EMC	EMCCFD300-BM-BM-6000	50821	Dec. 21, 2015	Dec. 20, 2016
Measurement Software	AUDIX	e3	6.120210k	NA	NA
Note: Calibration Interval of instruments listed above is one year.					

Test Item	Radiated Emission				
Test Site	966 chamber1 / (03CH01-WS)				
Instrument	Manufacturer	Model No.	Serial No.	Calibration Date	Calibration Until
Spectrum Analyzer	R&S	FSV40	101498	Dec. 13, 2015	Dec. 12, 2016
Receiver	R&S	ESR3	101658	Nov. 04, 2015	Nov. 03, 2016
Bilog Antenna	SCHWARZBECK	VULB9168	VULB9168-522	Aug. 20, 2015	Aug. 19, 2016
Horn Antenna 1G-18G	SCHWARZBECK	BBHA 9120 D	BBHA 9120 D 1096	Dec. 16, 2015	Dec. 15, 2016
Horn Antenna 18G-40G	SCHWARZBECK	BBHA 9170	BBHA 9170517	Nov. 04, 2015	Nov. 03, 2016
Preamplifier	Burgeon	BPA-530	SN:100219	Sep. 10, 2015	Sep. 09, 2016
Preamplifier	Agilent	83017A	MY39501308	Oct. 02, 2015	Oct. 01, 2016
Preamplifier	EMC	EMC184045B	980192	Sep. 01, 2015	Aug. 31, 2016
RF Cable	HUBER+SUHNER	SUCOFLEX104	MY16014/4	Dec. 10, 2015	Dec. 09, 2016
RF Cable	HUBER+SUHNER	SUCOFLEX104	MY16019/4	Dec. 10, 2015	Dec. 09, 2016
RF Cable	HUBER+SUHNER	SUCOFLEX104	MY16139/4	Dec. 10, 2015	Dec. 09, 2016
LF cable 3M	Woken	CFD400NL-LW	CFD400NL-001	Dec. 10, 2015	Dec. 09, 2016
LF cable 10M	Woken	CFD400NL-LW	CFD400NL-002	Dec. 10, 2015	Dec. 09, 2016
Measurement Software	AUDIX	e3	6.120210g	NA	NA
Note: Calibration Interval of instruments listed above is one year.					

Test Item	RF Conducted				
Test Site	(TH01-WS)				
Instrument	Manufacturer	Model No.	Serial No.	Calibration Date	Calibration Until
Spectrum Analyzer	R&S	FSV40	101063	Feb. 17, 2016	Feb. 16, 2017
TEMP&HUMIDITY CHAMBER	GIANT FORCE	GCT-225-40-SP-SD	MAF1212-002	Nov. 27, 2015	Nov. 26, 2016
Power Meter	Anritsu	ML2495A	1241002	Sep. 21, 2015	Sep. 20, 2016
Power Sensor	Anritsu	MA2411B	1207366	Sep. 21, 2015	Sep. 20, 2016
AC POWER SOURCE	APC	AFC-500W	F312060012	Oct. 26, 2015	Oct. 25, 2016
Measurement Software	Sporton	Sporton_1	1.3.30	NA	NA
Note: Calibration Interval of instruments listed above is one year.					

1.5 Testing Applied Standards

According to the specification of EUT, the EUT must comply with following standards and KDB documents.

47 CFR FCC Part 15.407

ANSI C63.10-2013

FCC KDB 789033 D02 General UNII Test Procedures New Rules v01r02

FCC KDB 644545 D03 Guidance for IEEE 802.11ac New Rules v01

FCC KDB 662911 D01 Multiple Transmitter Output v02r01

FCC KDB 412172 D01 Determining ERP and EIRP v01r01

1.6 Measurement Uncertainty

ISO/IEC 17025 requires that an estimate of the measurement uncertainties associated with the emissions test results be included in the report. The measurement uncertainties given below are based on a 95% confidence level (based on a coverage factor $k=2$)

Measurement Uncertainty	
Parameters	Uncertainty
Bandwidth	± 34.134 Hz
Conducted power	± 0.808 dB
Frequency error	± 34.134 Hz
Power density	± 0.463 dB
Conducted emission	± 2.670 dB
AC conducted emission	± 2.90 dB
Radiated emission ≤ 1 GHz	± 3.66 dB
Radiated emission > 1 GHz	± 5.63 dB
Time	$\pm 0.1\%$
Temperature	± 0.6 °C

2 Test Configuration

2.1 Testing Condition

Test Item	Test Site	Ambient Condition	Tested By
AC Conduction	CO01-WS	22°C / 64%	Jun Tseng
Radiated Emissions	03CH01-WS	22°C / 63%	Vincent Yeh
RF Conducted	TH01-WS	22°C / 64%	Alex Huang

➤ FCC site registration No.: 181692

➤ IC site registration No.: 10807A-1

2.2 The Worst Test Modes and Channel Details

For Frequency band 5250-5350 MHz, 5470-5725 MHz				
Test item	Modulation Mode	Test Frequency (MHz)	Data Rate	Test Configuration
Conducted Emissions	VHT40	5270	MCS 0	1, 2
Radiated Emissions ≤1GHz	VHT40	5270	MCS 0	1, 2
RF Output Power	11a	5260 / 5300 / 5320 5500 / 5580 / 5700	6 Mbps	1, 2
	HT20	5260 / 5300 / 5320 5500 / 5580 / 5700	MCS 0	
	HT40	5270 / 5310 5510 / 5550 / 5670	MCS 0	
	VHT20	5260 / 5300 / 5320 5500 / 5580 / 5700	MCS 0	
	VHT40	5270 / 5310 5510 / 5550 / 5670	MCS 0	
	VHT80	5290 / 5530	MCS 0	
Radiated Emissions >1GHz Emission Bandwidth Peak Power Spectral Density	11a	5260 / 5300 / 5320 5500 / 5580 / 5700	6 Mbps	1, 2
	VHT20	5260 / 5300 / 5320 5500 / 5580 / 5700	MCS 0	
	VHT40	5270 / 5310 5510 / 5550 / 5670	MCS 0	
	VHT80	5290 / 5530	MCS 0	
Frequency Stability	Un-modulation	5320	---	1, 2
Note: 1) The EUT was pretested with 3 orientations placed on the table for the radiated emission measurement – X, Y, and Z-plane. The X-plane results were found as the worst case and were shown in this report. 2) 2 types antenna are used for this device, highest gain antenna of each type is selected to perform related tests as below test configuration. 1) Test Configuration 1: External Dipole antenna , X-plane 2) Test Configuration 2: Internal PIFA antenna, X-plane				

3 Transmitter Test Results

3.1 Conducted Emissions

3.1.1 Limit of Conducted Emissions

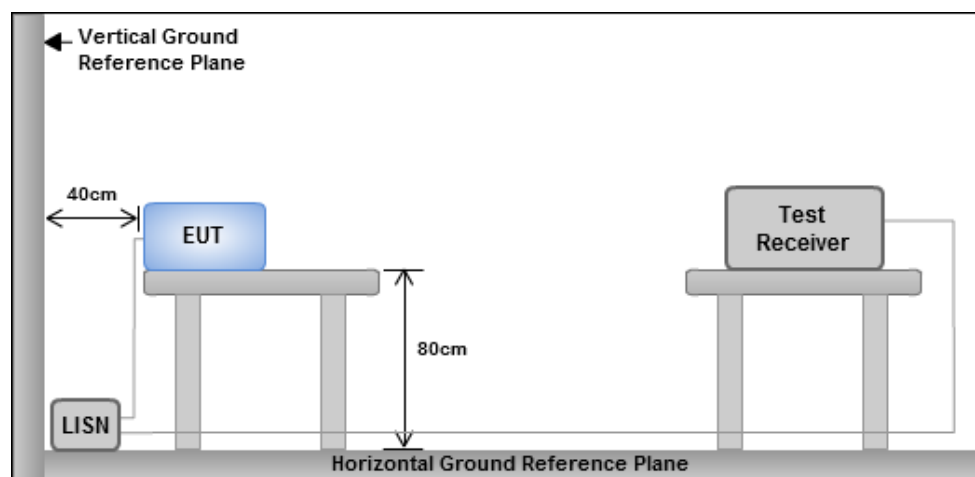
Conducted Emissions Limit		
Frequency Emission (MHz)	Quasi-Peak	Average
0.15-0.5	66 - 56 *	56 - 46 *
0.5-5	56	46
5-30	60	50

Note 1: * Decreases with the logarithm of the frequency.

3.1.2 Test Procedures

1. The device is placed on a test table, raised 80 cm above the reference ground plane. The vertical conducting plane is located 40 cm to the rear of the device.
2. The device is connected to line impedance stabilization network (LISN) and other accessories are connected to other LISN. Measured levels of AC power line conducted emission are across the 50 Ω LISN port.
3. AC conducted emission measurements is made over frequency range from 150 kHz to 30 MHz.
4. This measurement was performed with AC 120V/60Hz

3.1.3 Test Setup

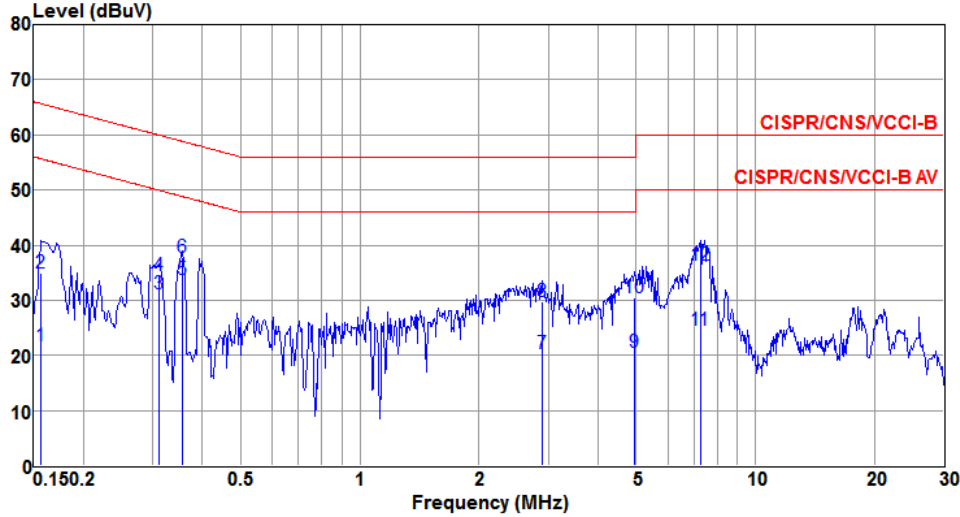


- Note: 1. Support units were connected to second LISN.
2. Both of LISNs (AMN) are 80 cm from EUT and at least 80 cm from other units and other metal planes

Test Configuration 1: External Dipole antenna

3.1.4 Test Result of Conducted Emissions

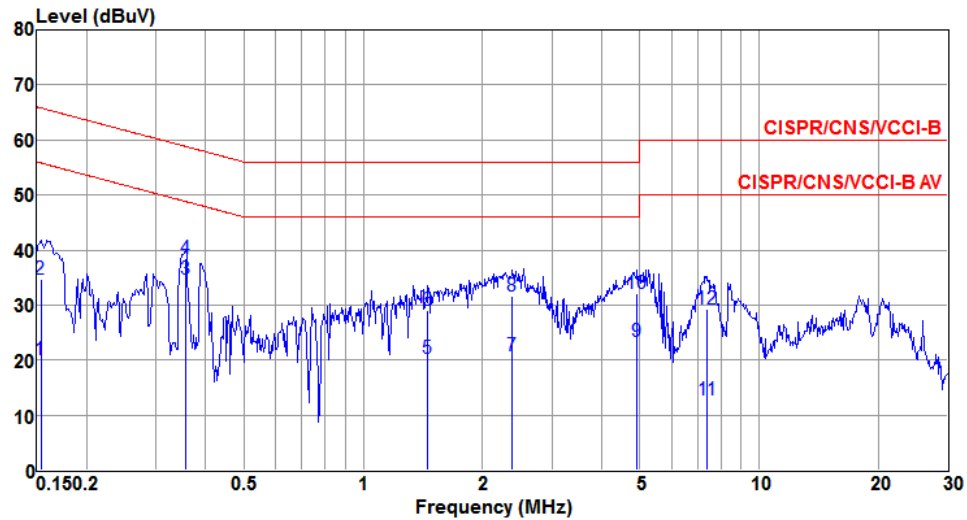
Modulation	VHT40	Test Freq. (MHz)	5270
Power Phase	Line	Configuration	1



	Freq MHz	Level dBuV	Limit Line dBuV	Over Limit dB	Read Level dBuV	LISN factor dB	cable loss dB	Remark
1	0.156	21.67	55.65	-33.98	21.54	0.11	0.02	Average
2	0.156	34.90	65.65	-30.75	34.77	0.11	0.02	QP
3	0.310	31.21	49.97	-18.76	31.06	0.12	0.03	Average
4	0.310	34.56	59.97	-25.41	34.41	0.12	0.03	QP
5	0.356	33.67	48.83	-15.16	33.51	0.13	0.03	Average
6	0.356	37.72	58.83	-21.11	37.56	0.13	0.03	QP
7	2.884	20.29	46.00	-25.71	20.01	0.18	0.10	Average
8	2.884	29.64	56.00	-26.36	29.36	0.18	0.10	QP
9	4.952	20.46	46.00	-25.54	20.13	0.20	0.13	Average
10	4.952	30.52	56.00	-25.48	30.19	0.20	0.13	QP
11	7.252	24.65	50.00	-25.35	24.28	0.22	0.15	Average
12	7.252	36.45	60.00	-23.55	36.08	0.22	0.15	QP

Note 1: Level (dBuV) = Read Level (dBuV) + LISN Factor (dB) + Cable Loss (dB).
 Note 2: Over Limit (dB) = Level (dBuV) – Limit Line (dBuV).

Modulation	VHT40	Test Freq. (MHz)	5270
Power Phase	Neutral	Configuration	1



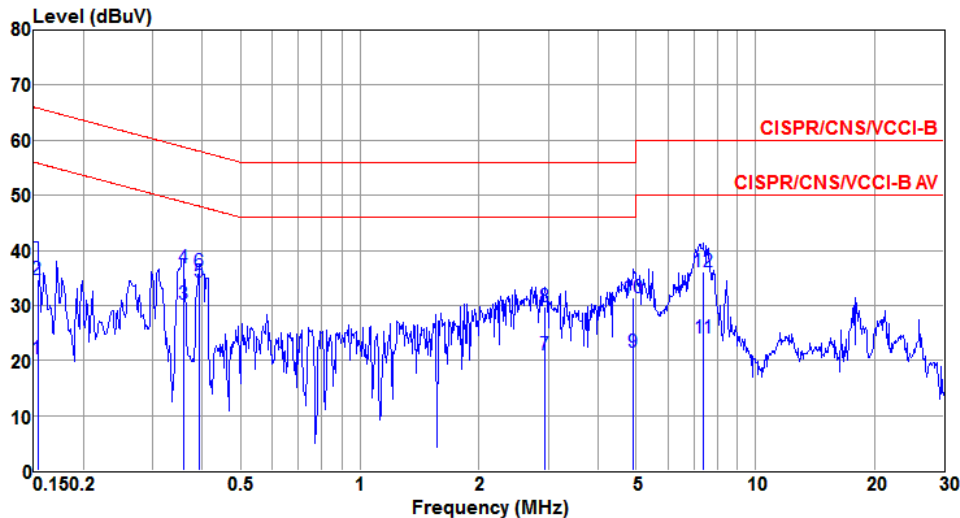
	Freq MHz	Level dBuV	Limit Line dBuV	Over Limit dB	Read Level dBuV	LISN factor dB	cable loss dB	Remark
1	0.153	20.14	55.82	-35.68	19.99	0.13	0.02	Average
2	0.153	34.71	65.82	-31.11	34.56	0.13	0.02	QP
3	0.356	34.81	48.83	-14.02	34.65	0.13	0.03	Average
4	0.356	38.48	58.83	-20.35	38.32	0.13	0.03	QP
5	1.456	20.24	46.00	-25.76	20.02	0.15	0.07	Average
6	1.456	29.15	56.00	-26.85	28.93	0.15	0.07	QP
7	2.384	20.84	46.00	-25.16	20.58	0.17	0.09	Average
8	2.384	31.74	56.00	-24.26	31.48	0.17	0.09	QP
9	4.926	23.39	46.00	-22.61	23.07	0.19	0.13	Average
10	4.926	31.99	56.00	-24.01	31.67	0.19	0.13	QP
11	7.407	12.82	50.00	-37.18	12.43	0.24	0.15	Average
12	7.407	29.25	60.00	-30.75	28.86	0.24	0.15	QP

Note 1: Level (dBuV) = Read Level (dBuV) + LISN Factor (dB) + Cable Loss (dB).
 2: Over Limit (dB) = Level (dBuV) – Limit Line (dBuV).

Test Configuration 2: Internal PIFA antenna

3.1.5 Test Result of Conducted Emissions

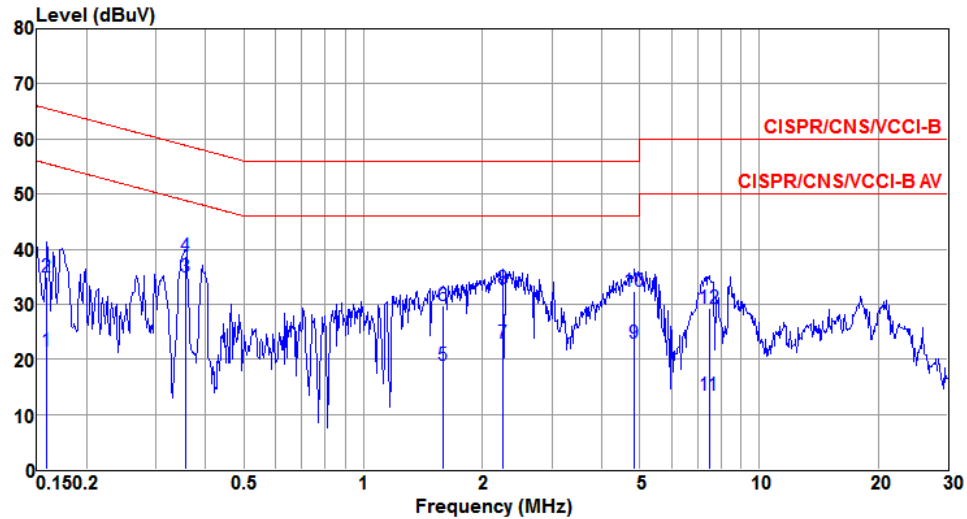
Modulation	VHT40	Test Freq. (MHz)	5270
Power Phase	Line	Configuration	2



	Freq MHz	Level dBuV	Limit Line dBuV	Over Limit dB	Read Level dBuV	LISN factor dB	cable loss dB	Remark
1	0.153	20.27	55.82	-35.55	20.14	0.11	0.02	Average
2	0.153	34.59	65.82	-31.23	34.46	0.11	0.02	QP
3	0.358	30.18	48.78	-18.60	30.02	0.13	0.03	Average
4	0.358	36.84	58.78	-21.94	36.68	0.13	0.03	QP
5@	0.393	34.17	47.99	-13.82	34.01	0.13	0.03	Average
6	0.393	36.20	57.99	-21.79	36.04	0.13	0.03	QP
7	2.931	21.13	46.00	-24.87	20.85	0.18	0.10	Average
8	2.931	29.63	56.00	-26.37	29.35	0.18	0.10	QP
9	4.926	21.44	46.00	-24.56	21.11	0.20	0.13	Average
10	4.926	31.30	56.00	-24.70	30.97	0.20	0.13	QP
11	7.407	24.09	50.00	-25.91	23.72	0.22	0.15	Average
12	7.407	36.12	60.00	-23.88	35.75	0.22	0.15	QP

Note 1: Level (dBuV) = Read Level (dBuV) + LISN Factor (dB) + Cable Loss (dB).
 Note 2: Over Limit (dB) = Level (dBuV) – Limit Line (dBuV).

Modulation	VHT40	Test Freq. (MHz)	5270
Power Phase	Neutral	Configuration	2



	Freq	Level	Limit	Over	Read	LISN	cable	Remark
	MHz	dBuV	Line	Limit	Level	factor	loss	
			dBuV	dB	dBuV	dB	dB	
1	0.159	21.42	55.52	-34.10	21.28	0.12	0.02	Average
2	0.159	35.05	65.52	-30.47	34.91	0.12	0.02	QP
3	0.356	34.91	48.83	-13.92	34.75	0.13	0.03	Average
4	0.356	38.74	58.83	-20.09	38.58	0.13	0.03	QP
5	1.585	18.88	46.00	-27.12	18.65	0.16	0.07	Average
6	1.585	29.82	56.00	-26.18	29.59	0.16	0.07	QP
7	2.261	22.92	46.00	-23.08	22.66	0.17	0.09	Average
8	2.261	32.70	56.00	-23.30	32.44	0.17	0.09	QP
9	4.848	22.95	46.00	-23.05	22.63	0.19	0.13	Average
10	4.848	32.30	56.00	-23.70	31.98	0.19	0.13	QP
11	7.486	13.44	50.00	-36.56	13.05	0.24	0.15	Average
12	7.486	29.25	60.00	-30.75	28.86	0.24	0.15	QP

Note 1: Level (dBuV) = Read Level (dBuV) + LISN Factor (dB) + Cable Loss (dB).
 2: Over Limit (dB) = Level (dBuV) – Limit Line (dBuV).

3.2 Emission Bandwidth

3.2.1 Test Procedures

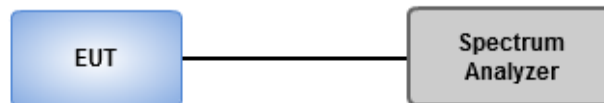
26dB Bandwidth

1. Set RBW = approximately 1% of the emission bandwidth.
2. Set the VBW > RBW, Detector = Peak.
3. Trace mode = max hold.
4. Measure the maximum width of the emission that is 26 dB down from the peak of the emission.

Occupied Bandwidth

1. Set RBW = 1 % to 5 % of the OBW
2. Set VBW $\geq$ 3 RBW
3. Sample detection and single sweep mode shall be used
4. Use the 99 % power bandwidth function of the instrument

3.2.2 Test Setup

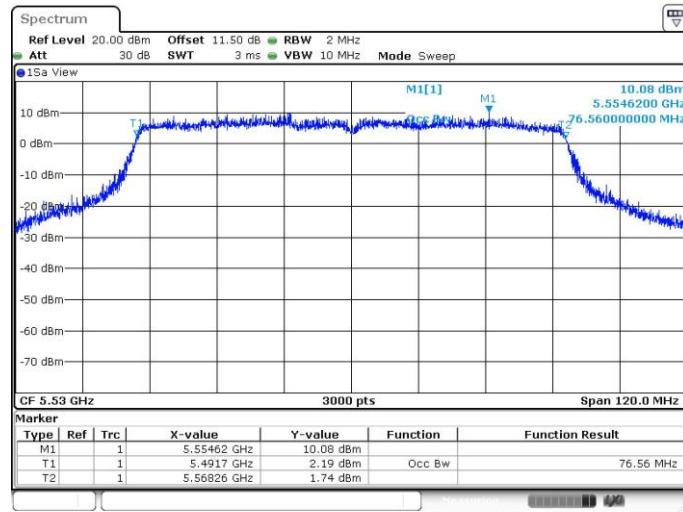


Test Configuration 1: External Dipole antenna

3.2.3 Test Result of Emission Bandwidth

Emission Bandwidth									
Mode	N _{TX}	Freq. (MHz)	26dB Bandwidth (MHz)			99% Bandwidth (MHz)			Power Limit (dBm)
			Chain 0	Chain 1	Chain 2	Chain 0	Chain 1	Chain 2	
11a	3	5260	25.68	24.75	24.23	16.92	16.86	16.91	23.27
11a	3	5300	24.29	24.58	24.23	16.97	16.87	16.89	23.27
11a	3	5320	24.64	24.41	24.81	16.86	16.95	16.90	23.27
VHT20	3	5260	24.75	26.09	25.51	17.93	18.06	17.98	23.54
VHT20	3	5300	24.93	25.57	25.45	17.93	18.06	18.00	23.54
VHT20	3	5320	25.04	25.86	25.51	17.87	17.85	17.96	23.52
VHT40	3	5270	48.70	48.00	48.81	37.02	36.80	36.92	24.00
VHT40	3	5310	48.58	48.81	48.70	37.00	37.08	36.92	24.00
VHT80	3	5290	98.09	94.84	93.68	76.48	76.24	76.40	24.00
11a	3	5500	24.23	24.64	23.94	16.95	16.91	16.92	23.28
11a	3	5580	25.57	24.46	24.00	16.88	16.91	16.89	23.27
11a	3	5700	24.81	24.70	24.70	16.89	16.89	16.92	23.28
VHT20	3	5500	24.58	25.86	25.51	17.90	17.97	17.99	23.53
VHT20	3	5580	25.51	25.86	25.22	18.00	18.05	17.95	23.54
VHT20	3	5700	26.14	25.04	26.72	18.03	18.00	18.06	23.55
VHT40	3	5510	49.97	49.86	48.46	36.80	36.90	36.92	24.00
VHT40	3	5550	50.20	47.88	48.70	36.96	36.82	36.88	24.00
VHT40	3	5670	49.28	47.88	49.16	36.90	37.14	36.82	24.00
VHT80	3	5530	96.00	93.68	92.29	76.56	76.48	76.44	24.00

Worst Plot

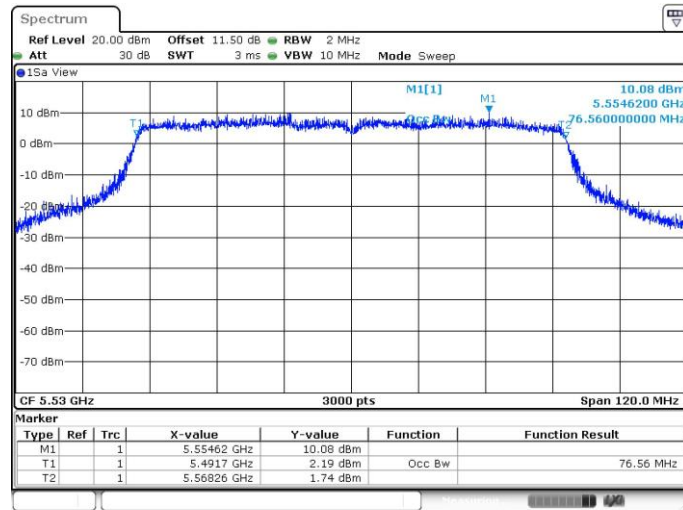


Test Configuration 2: Internal PIFA antenna

3.2.4 Test Result of Emission Bandwidth

Emission Bandwidth									
Mode	N _{TX}	Freq. (MHz)	26dB Bandwidth (MHz)			99% Bandwidth (MHz)			Power Limit (dBm)
			Chain 0	Chain 1	Chain 2	Chain 0	Chain 1	Chain 2	
11a	3	5260	24.81	24.23	24.35	16.99	16.89	16.88	23.27
11a	3	5300	25.04	24.46	23.88	16.85	16.98	16.91	23.27
11a	3	5320	24.99	24.75	23.88	17.00	16.88	16.87	23.27
VHT20	3	5260	25.80	26.43	26.03	17.99	18.08	18.05	23.55
VHT20	3	5300	24.81	25.68	25.80	17.89	17.85	17.95	23.52
VHT20	3	5320	25.68	26.38	25.45	18.14	17.90	17.98	23.53
VHT40	3	5270	49.04	49.97	47.77	36.80	36.78	36.86	24.00
VHT40	3	5310	49.16	49.28	47.88	36.78	36.70	36.84	24.00
VHT80	3	5290	98.09	94.84	93.68	76.48	76.24	76.40	24.00
11a	3	5500	25.10	24.00	24.81	16.96	16.90	16.89	23.28
11a	3	5580	25.22	24.75	24.23	16.90	16.91	16.92	23.28
11a	3	5700	24.46	25.10	25.22	16.91	16.92	16.83	23.26
VHT20	3	5500	25.51	25.39	25.80	18.08	18.00	17.97	23.55
VHT20	3	5580	26.09	24.93	25.33	17.99	17.88	18.02	23.52
VHT20	3	5700	25.57	25.28	26.09	17.99	17.79	18.05	23.50
VHT40	3	5510	49.62	48.12	48.00	36.84	36.84	36.92	24.00
VHT40	3	5550	49.74	49.28	48.58	37.00	36.90	36.86	24.00
VHT40	3	5670	49.28	47.54	48.00	36.88	37.14	36.76	24.00
VHT80	3	5530	96.00	93.68	92.29	76.56	76.48	76.44	24.00

Worst Plot



3.3 RF Output Power

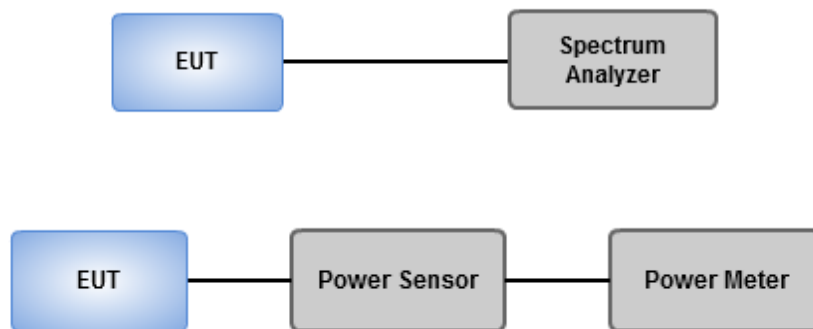
3.3.1 Limit of RF Output Power

Frequency Band (MHz)		Limit
☒	5250 ~ 5350	250mW or 11dBm+10 log B
☒	5470 ~ 5725	250mW or 11dBm+10 log B
Note: "B" is the 26dB emission bandwidth in MHz.		

3.3.2 Test Procedures

- ☒ Power meter (For channel that does not extends across the 5.725 GHz boundary)
 - ☒ Measurements is performed using a wideband gated RF power meter provided that the gate parameters are adjusted such that the power is measured only when the EUT is transmitting at its maximum power control level. Since the measurement is made only during the ON time of the transmitter, no duty cycle correction factor is required
- ☒ Spectrum analyzer (For channel that extends across the 5.725 GHz boundary)
 1. Set RBW=1MHz, VBW=3MHz , Sweep time= Auto, Detector = RMS
 2. Trace average at least 100 traces in power averaging mode
 3. Compute power by integrating the spectrum across the 26 dB EBW

3.3.3 Test Setup



Test Configuration 1: External Dipole antenna

3.3.4 Test Result of Maximum Conducted Output Power

Mode	N _{TX}	Freq. (MHz)	Conducted Power (dBm)				Total Power (mW)	Total Power (dBm)	Limit (dBm)
			Chain 0	Chain 1	Chain 2	Chain 3			
11a	3	5260	14.77	13.79	14.03	---	79.218	18.99	24.00
11a	3	5300	15.35	14.07	14.38	---	87.220	19.41	24.00
11a	3	5320	15.32	14.36	14.12	---	87.153	19.40	24.00
HT20	3	5260	15.29	14.19	13.87	---	84.427	19.26	24.00
HT20	3	5300	15.12	14.54	14.19	---	87.196	19.40	24.00
HT20	3	5320	15.72	14.88	14.49	---	96.205	19.83	24.00
HT40	3	5270	18.28	17.21	18.51	---	190.857	22.81	24.00
HT40	3	5310	15.44	14.31	15.94	---	101.236	20.05	24.00
VHT20	3	5260	15.32	14.21	13.91	---	85.008	19.29	24.00
VHT20	3	5300	15.19	14.57	14.23	---	88.164	19.45	24.00
VHT20	3	5320	15.76	14.91	14.53	---	97.024	19.87	24.00
VHT40	3	5270	18.34	17.25	18.55	---	192.937	22.85	24.00
VHT40	3	5310	15.48	14.36	15.99	---	102.327	20.10	24.00
VHT80	3	5290	11.63	10.82	10.78	---	38.600	15.87	24.00
11a	3	5500	14.57	13.81	14.63	---	81.726	19.12	24.00
11a	3	5580	14.73	14.36	14.78	---	87.067	19.40	24.00
11a	3	5700	13.68	13.2	13.91	---	68.831	18.38	24.00
HT20	3	5500	14.77	14.19	15.18	---	89.195	19.50	24.00
HT20	3	5580	15.20	14.49	15.20	---	94.345	19.75	24.00
HT20	3	5700	14.19	13.64	14.33	---	76.465	18.83	24.00
HT40	3	5510	17.58	16.29	17.31	---	153.666	21.87	24.00
HT40	3	5550	18.61	16.51	18.00	---	180.478	22.56	24.00
HT40	3	5670	17.62	16.68	17.71	---	163.388	22.13	24.00
VHT20	3	5500	14.84	14.22	15.21	---	90.092	19.55	24.00
VHT20	3	5580	15.26	14.54	15.25	---	95.515	19.80	24.00
VHT20	3	5700	14.21	13.68	14.41	---	77.304	18.88	24.00
VHT40	3	5510	17.62	16.33	17.34	---	154.963	21.90	24.00
VHT40	3	5550	18.65	16.54	18.03	---	181.897	22.60	24.00
VHT40	3	5670	17.67	16.71	17.74	---	164.790	22.17	24.00
VHT80	3	5530	13.57	13.21	13.18	---	64.489	18.09	24.00

Test Configuration 2: Internal PIFA antenna

3.3.5 Test Result of Maximum Conducted Output Power

Mode	N _{TX}	Freq. (MHz)	Conducted Power (dBm)				Total Power (mW)	Total Power (dBm)	Limit (dBm)
			Chain 0	Chain 1	Chain 2	Chain 3			
11a	3	5260	14.36	13.38	13.65	---	72.241	18.59	24.00
11a	3	5300	14.62	13.72	13.73	---	76.129	18.82	24.00
11a	3	5320	14.58	13.69	13.68	---	75.431	18.78	24.00
HT20	3	5260	14.91	13.84	13.48	---	77.469	18.89	24.00
HT20	3	5300	15.21	13.99	14.19	---	84.493	19.27	24.00
HT20	3	5320	15.40	14.48	13.98	---	87.731	19.43	24.00
HT40	3	5270	17.81	16.72	18.08	---	171.653	22.35	24.00
HT40	3	5310	13.19	12.24	13.61	---	60.556	17.82	24.00
VHT20	3	5260	14.95	13.88	13.52	---	78.186	18.93	24.00
VHT20	3	5300	15.23	14.04	14.24	---	85.240	19.31	24.00
VHT20	3	5320	15.44	14.52	14.02	---	88.543	19.47	24.00
VHT40	3	5270	17.86	16.79	18.11	---	173.561	22.39	24.00
VHT40	3	5310	13.24	12.28	13.65	---	61.165	17.87	24.00
VHT80	3	5290	11.63	10.82	10.78	---	38.600	15.87	24.00
11a	3	5500	14.45	13.62	13.63	---	73.943	18.69	24.00
11a	3	5580	14.58	13.42	14.26	---	77.355	18.88	24.00
11a	3	5700	13.21	12.86	13.48	---	62.545	17.96	24.00
HT20	3	5500	14.37	13.81	14.71	---	80.976	19.08	24.00
HT20	3	5580	14.60	14.14	14.51	---	83.031	19.19	24.00
HT20	3	5700	13.79	13.17	13.89	---	69.173	18.40	24.00
HT40	3	5510	15.99	14.77	15.47	---	104.948	20.21	24.00
HT40	3	5550	18.01	16.48	17.31	---	161.531	22.08	24.00
HT40	3	5670	17.16	16.22	17.26	---	147.090	21.68	24.00
VHT20	3	5500	14.41	13.86	14.76	---	81.850	19.13	24.00
VHT20	3	5580	14.64	14.19	14.55	---	83.860	19.24	24.00
VHT20	3	5700	13.84	13.21	13.95	---	69.983	18.45	24.00
VHT40	3	5510	16.02	14.81	15.82	---	108.458	20.35	24.00
VHT40	3	5550	18.04	16.52	17.33	---	162.630	22.11	24.00
VHT40	3	5670	17.19	16.28	17.29	---	148.402	21.71	24.00
VHT80	3	5530	13.57	13.21	13.18	---	64.489	18.09	24.00

3.4 Peak Power Spectral Density

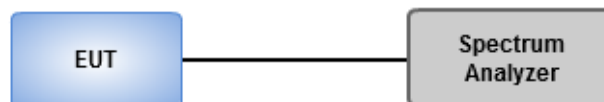
3.4.1 Limit of Peak Power Spectral Density

Frequency Band (MHz)		Limit
☒	5250 ~ 5350	11 dBm / MHz
☒	5470 ~ 5725	11 dBm / MHz

3.4.2 Test Procedures

- ☒ Method SA-1 (For 11a / 11ac VHT20)
 - Set RBW = 1 MHz, VBW = 3 MHz, Sweep time = auto, Detector = RMS.
 - Trace average 100 traces.
 - Use the peak marker function to determine the maximum amplitude level.
- ☒ Method SA-2 Alternative (For 11ac VHT40 / VHT80)
 - Set RBW = 1 MHz, VBW = 3 MHz, Detector = RMS.
 - Set sweep time $\geq 10 \times (\text{number of points in sweep}) \times (\text{total on/off period of the transmitted signal})$.
 - Perform a single sweep.
 - Use the peak marker function to determine the maximum amplitude level.
 - Add $10 \log(1/x)$, where x is the duty cycle.

3.4.3 Test Setup



Test Configuration 1: External Dipole antenna

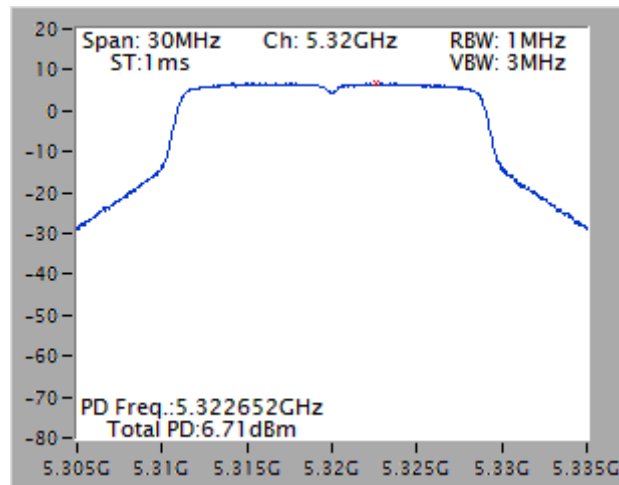
3.4.4 Test Result of Peak Power Spectral Density

Condition			Peak Power Spectral Density (dBm/MHz)			
Mode	N _{TX}	Freq. (MHz)	PPSD w/o D.F (dBm/MHz)	Duty Factor (dB)	PPSD with D.F (dBm/MHz)	PPSD Limit (dBm/MHz)
11a	3	5260	6.43	0.00	6.43	6.73
11a	3	5300	6.25	0.00	6.25	6.73
11a	3	5320	6.44	0.00	6.44	6.73
VHT20	3	5260	6.57	0.00	6.57	6.73
VHT20	3	5300	6.34	0.00	6.34	6.73
VHT20	3	5320	6.71	0.00	6.71	6.73
VHT40	3	5270	6.47	0.23	6.70	6.73
VHT40	3	5310	4.58	0.23	4.81	6.73
VHT80	3	5290	-3.15	0.44	-2.71	6.73
11a	3	5500	6.49	0.00	6.49	6.73
11a	3	5580	6.53	0.00	6.53	6.73
11a	3	5700	6.32	0.00	6.32	6.73
VHT20	3	5500	6.34	0.00	6.34	6.73
VHT20	3	5580	6.31	0.00	6.31	6.73
VHT20	3	5700	6.55	0.00	6.55	6.73
VHT40	3	5510	5.78	0.23	6.01	6.73
VHT40	3	5550	6.00	0.23	6.23	6.73
VHT40	3	5670	5.89	0.23	6.12	6.73
VHT80	3	5530	-0.62	0.44	-0.18	6.73

Note:

1. D.F is duty factor.
2. Test result is bin-by-bin summing measured value of each TX port.
3. Directional gain = 5.5 dBi + 10*log(3/1) = 10.27 dBi > 6 dBi, limit shall be reduced to 11 dBm – (10.27dBi – 6dBi) = 6.73 dBm.

Worst Plot



Note: the worst plot is w/o duty factor.

Test Configuration 2: Internal PIFA antenna

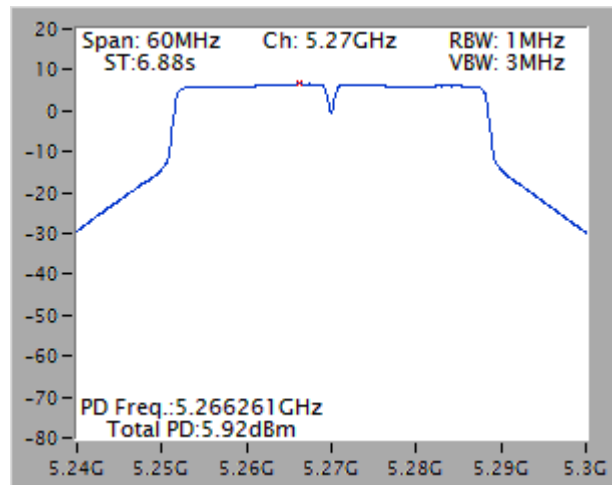
3.4.5 Test Result of Peak Power Spectral Density

Condition			Peak Power Spectral Density (dBm/MHz)			
Mode	N _{TX}	Freq. (MHz)	PPSD w/o D.F (dBm/MHz)	Duty Factor (dB)	PPSD with D.F (dBm/MHz)	PPSD Limit (dBm/MHz)
11a	3	5260	5.82	0.00	5.82	6.23
11a	3	5300	5.84	0.00	5.84	6.23
11a	3	5320	6.08	0.00	6.08	6.23
VHT20	3	5260	6.07	0.00	6.07	6.23
VHT20	3	5300	5.73	0.00	5.73	6.23
VHT20	3	5320	5.95	0.00	5.95	6.23
VHT40	3	5270	5.92	0.23	6.15	6.23
VHT40	3	5310	2.54	0.23	2.77	6.23
VHT80	3	5290	-3.15	0.44	-2.71	6.23
11a	3	5500	6.06	0.00	6.06	6.23
11a	3	5580	6.01	0.00	6.01	6.23
11a	3	5700	5.79	0.00	5.79	6.23
VHT20	3	5500	5.88	0.00	5.88	6.23
VHT20	3	5580	6.08	0.00	6.08	6.23
VHT20	3	5700	5.89	0.00	5.89	6.23
VHT40	3	5510	4.26	0.23	4.49	6.23
VHT40	3	5550	5.77	0.23	6.00	6.23
VHT40	3	5670	5.48	0.23	5.71	6.23
VHT80	3	5530	-0.62	0.44	-0.18	6.23

Note:

1. D.F is duty factor.
2. Test results are bin-by-bin summing measured value of each TX port.
3. Directional gain = 6 dBi + 10*log(3/1) = 10.77 dBi > 6 dBi, limit shall be reduced to 11 dBm – (10.77dBi – 6dBi) = 6.23 dBm.

Worst Plot



Note: the worst plot is w/o duty factor.

3.5 Transmitter Radiated and Band Edge Emissions

3.5.1 Limit of Transmitter Radiated and Band Edge Emissions

Restricted Band Emissions Limit			
Frequency Range (MHz)	Field Strength (uV/m)	Field Strength (dBuV/m)	Measure Distance (m)
0.009~0.490	2400/F(kHz)	48.5 - 13.8	300
0.490~1.705	24000/F(kHz)	33.8 - 23	30
1.705~30.0	30	29	30
30~88	100	40	3
88~216	150	43.5	3
216~960	200	46	3
Above 960	500	54	3

Note 1:
Qusai-Peak value is measured for frequency below 1GHz except for 9–90 kHz, 110–490 kHz frequency band. Peak and average value are measured for frequency above 1GHz. The limit on average radio frequency emission is as above table. The limit on peak radio frequency emissions is 20 dB above the maximum permitted average emission limit

Note 2:
Measurements may be performed at a distance other than what is specified provided. When performing measurements at a distance other than that specified, the results shall be extrapolated to the specified distance using an extrapolation factor as below, Frequency at or above 30 MHz: 20 dB/decade Frequency below 30 MHz: 40 dB/decade.

Un-restricted band emissions above 1GHz Limit	
Operating Band	Limit
5.25 - 5.35 GHz	e.i.r.p. -27 dBm [68.2 dBuV/m@3m]
5.47 - 5.725 GHz	e.i.r.p. -27 dBm [68.2 dBuV/m@3m]

Note 1: Measurements may be performed at a distance other than the limit distance provided they are not performed in the near field and the emissions to be measured can be detected by the measurement equipment. When performing measurements at a distance other than that specified, the results shall be extrapolated to the specified distance using an extrapolation factor of 20 dB/decade (inverse of linear distance for field-strength measurements, inverse of linear distance-squared for power-density measurements).

3.5.2 Test Procedures

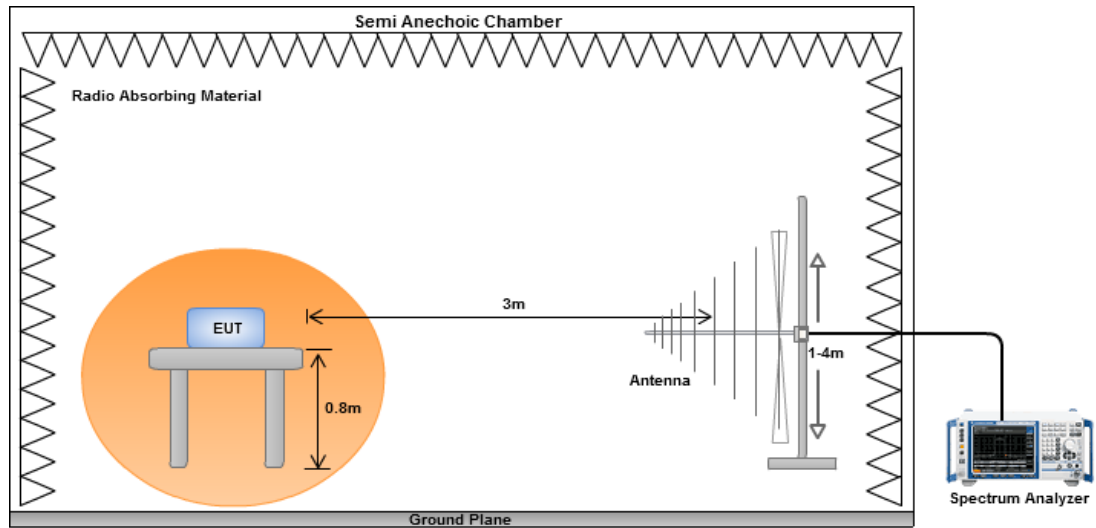
1. Measurement is made at a semi-anechoic chamber that incorporates a turntable allowing a EUT rotation of 360° . A continuously-rotating, remotely-controlled turntable is installed at the test site to support the EUT and facilitate determination of the direction of maximum radiation for each EUT emission frequency. The EUT is placed at test table. For emissions testing at or below 1 GHz, the table height is 80 cm above the reference ground plane. For emission measurements above 1 GHz, the table height is 1.5 m
2. Measurement is made with the antenna positioned in both the horizontal and vertical planes of polarization. The measurement antenna is varied in height (1m ~ 4m) above the reference ground plane to obtain the maximum signal strength. Distance between EUT and antenna is 3 m.
3. This investigation is performed with the EUT rotated 360° , the antenna height scanned between 1 m and 4 m, and the antenna rotated to repeat the measurements for both the horizontal and vertical antenna polarizations.

Note:

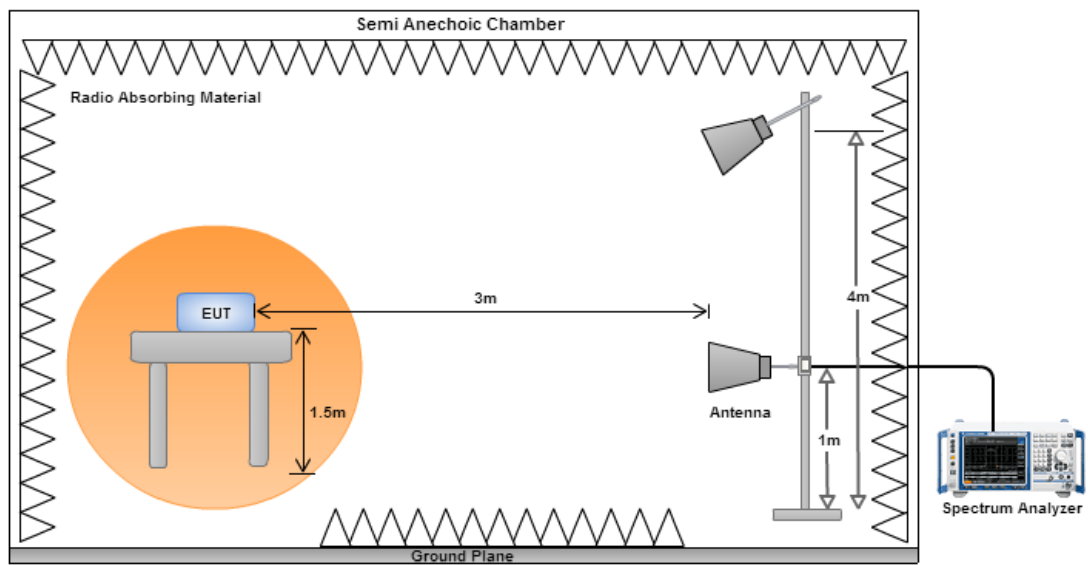
1. 120kHz measurement bandwidth of test receiver and Quasi-peak detector is for radiated emission below 1GHz.
2. RBW=1MHz, VBW=3MHz and Peak detector is for peak measured value of radiated emission above 1GHz.
3. RBW=1MHz, VBW=1/T and Peak detector is for average measured value of radiated emission above 1GHz.

3.5.3 Test Setup

Radiated Emissions below 1 GHz



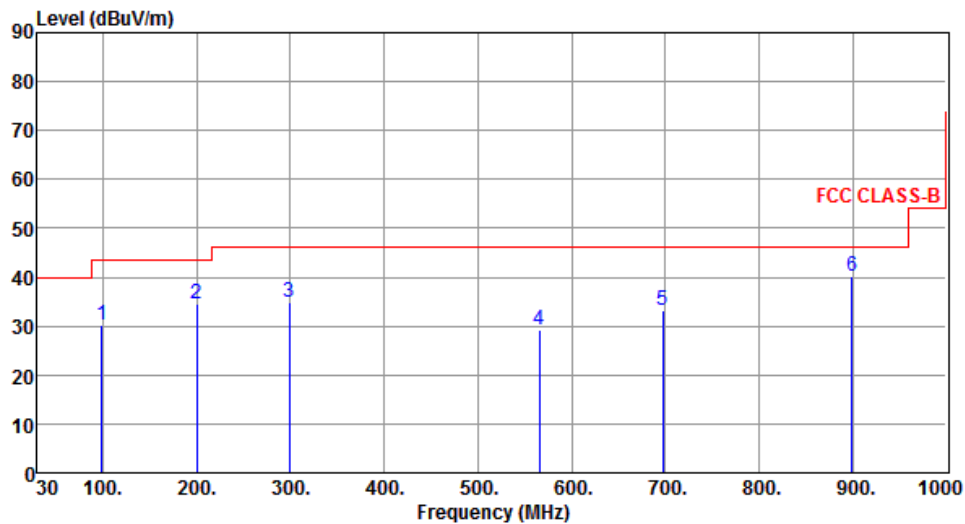
Radiated Emissions above 1 GHz



Test Configuration 1: External Dipole antenna

3.5.4 Transmitter Radiated Unwanted Emissions (Below 1GHz)

Modulation	VHT40	Test Freq. (MHz)	5270
Polarization	Horizontal	Test Configuration	1



	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	98.87	30.21	43.50	-13.29	51.71	-21.50	Peak	---	---
2	199.75	34.48	43.50	-9.02	53.76	-19.28	Peak	---	---
3	298.69	34.78	46.00	-11.22	50.60	-15.82	Peak	---	---
4	565.44	29.16	46.00	-16.84	39.34	-10.18	Peak	---	---
5	697.36	33.28	46.00	-12.72	41.38	-8.10	Peak	---	---
6	899.12	40.05	46.00	-5.95	45.28	-5.23	Peak	---	---

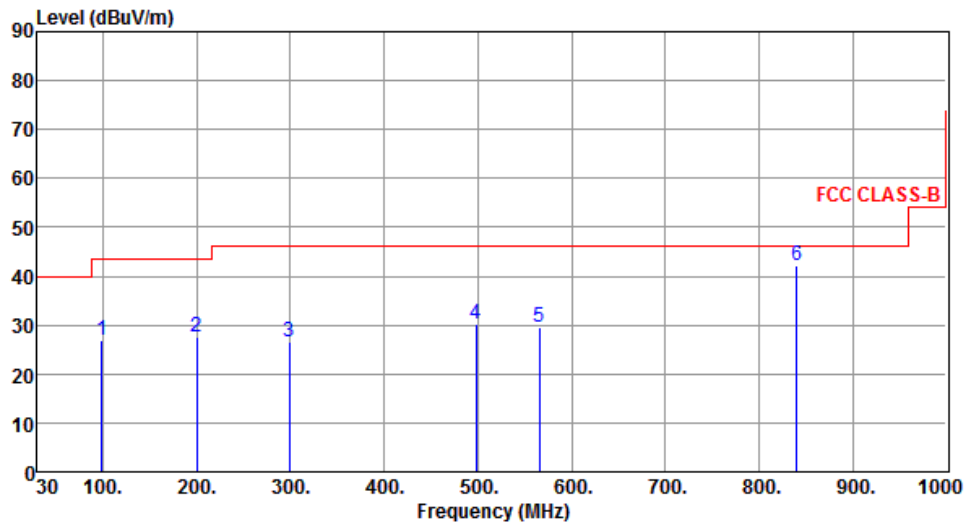
Note 1: Emission Level (dBuV/m) = SA Reading (dBuV/m) + Factor* (dB)

*Factor includes antenna factor , cable loss and amplifier gain

Note 2: Margin (dB) = Emission level (dBuV/m) – Limit (dBuV/m).

Note 3: All spurious emissions below 30MHz are more than 20 dB below the limit.

Modulation	VHT40	Test Freq. (MHz)	5270
Polarization	Vertical	Test Configuration	1



	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	98.87	26.99	43.50	-16.51	48.49	-21.50	Peak	---	---
2	199.75	27.71	43.50	-15.79	46.99	-19.28	Peak	---	---
3	298.69	26.67	46.00	-19.33	42.49	-15.82	Peak	---	---
4	498.51	30.10	46.00	-15.90	41.25	-11.15	Peak	---	---
5	565.44	29.55	46.00	-16.45	39.73	-10.18	Peak	---	---
6	839.95	42.28	46.00	-3.72	48.29	-6.01	Peak	---	---

Note 1: Emission Level (dBuV/m) = SA Reading (dBuV/m) + Factor* (dB)

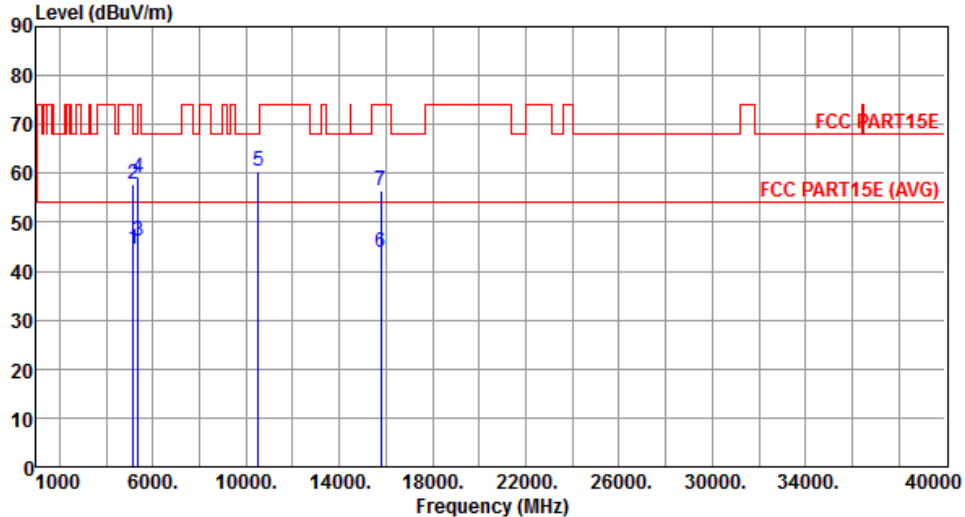
*Factor includes antenna factor , cable loss and amplifier gain

Note 2: Margin (dB) = Emission level (dBuV/m) – Limit (dBuV/m).

Note 3: All spurious emissions below 30MHz are more than 20 dB below the limit.

3.5.5 Transmitter Radiated Unwanted Emissions (Above 1GHz) for 11a

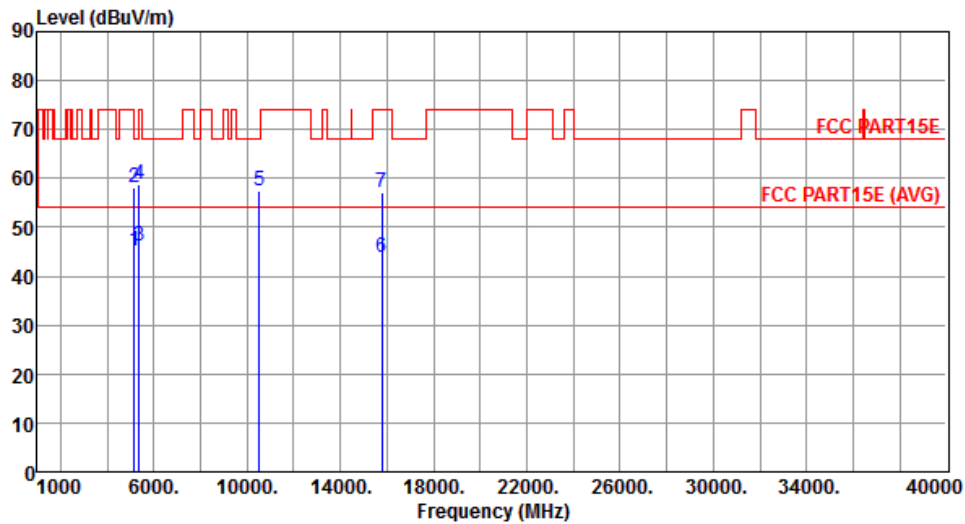
Modulation	11a	Test Freq. (MHz)	5260
Polarization	Horizontal	Test Configuration	1



	Freq. MHz	Emission level dBUV/m	Limit dBUV/m	Margin dB	SA reading dBUV	Factor dB	Remark	ANT High cm	Turn Table deg
1	5150.00	44.65	54.00	-9.35	40.25	4.40	Average	285	200
2	5150.00	57.84	74.00	-16.16	53.44	4.40	Peak	285	200
3	5350.00	46.32	54.00	-7.68	41.68	4.64	Average	285	200
4	5350.00	59.15	74.00	-14.85	54.51	4.64	Peak	285	200
5	10520.00	60.49	68.20	-7.71	45.99	14.50	Peak	100	318
6	15780.00	43.88	54.00	-10.12	29.09	14.79	Average	100	89
7	15780.00	56.39	74.00	-17.61	41.60	14.79	Peak	100	89

Note 1: Emission Level (dBUV/m) = SA Reading (dBUV/m) + Factor* (dB)
 *Factor includes antenna factor , cable loss and amplifier gain
 Note 2: Margin (dB) = Emission level (dBUV/m) – Limit (dBUV/m).

Modulation	11a	Test Freq. (MHz)	5260
Polarization	Vertical	Test Configuration	1



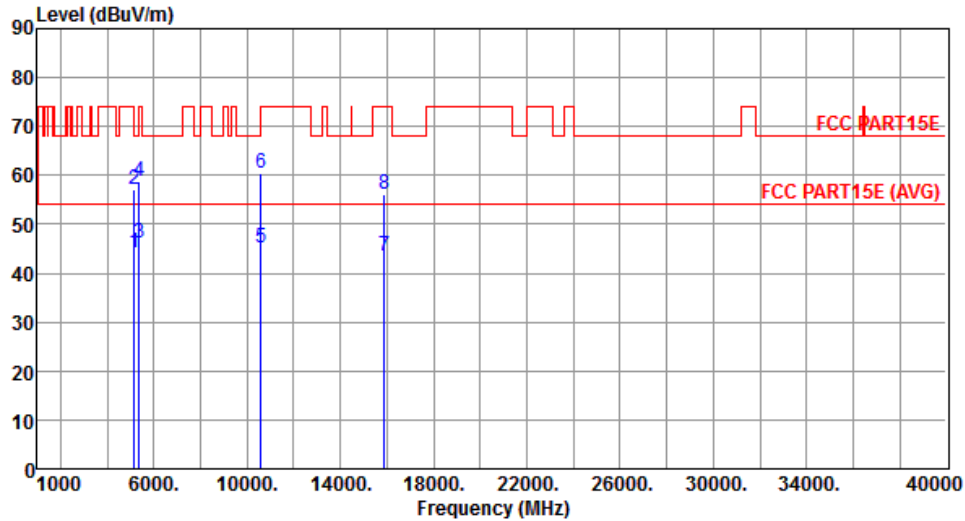
	Freq. MHz	Emission level dBUV/m	Limit dBUV/m	Margin dB	SA reading dBUV	Factor dB	Remark	ANT High cm	Turn Table deg
1	5150.00	45.22	54.00	-8.78	40.82	4.40	Average	100	87
2	5150.00	58.02	74.00	-15.98	53.62	4.40	Peak	100	87
3	5350.00	46.31	54.00	-7.69	41.67	4.64	Average	100	87
4	5350.00	58.68	74.00	-15.32	54.04	4.64	Peak	100	87
5	10520.00	57.57	68.20	-10.63	43.07	14.50	Peak	100	90
6	15780.00	43.82	54.00	-10.18	29.03	14.79	Average	100	326
7	15780.00	57.00	74.00	-17.00	42.21	14.79	Peak	100	326

Note 1: Emission Level (dBUV/m) = SA Reading (dBUV/m) + Factor* (dB)

*Factor includes antenna factor , cable loss and amplifier gain

Note 2: Margin (dB) = Emission level (dBUV/m) – Limit (dBUV/m).

Modulation	11a	Test Freq. (MHz)	5300
Polarization	Horizontal	Test Configuration	1



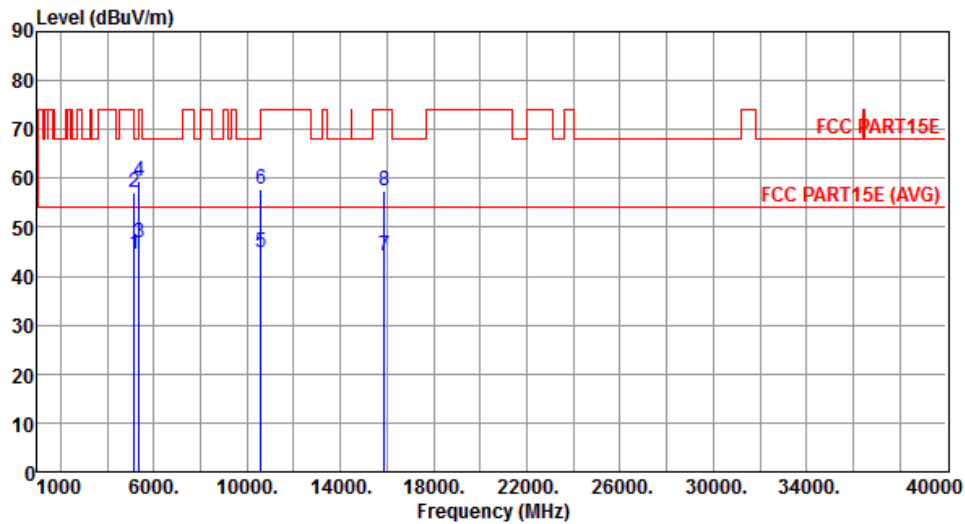
	Freq. MHz	Emission level dBUV/m	Limit dBUV/m	Margin dB	SA reading dBUV	Factor dB	Remark	ANT High cm	Turn Table deg
1	5150.00	44.23	54.00	-9.77	39.83	4.40	Average	124	335
2	5150.00	57.20	74.00	-16.80	52.80	4.40	Peak	124	335
3	5350.00	46.22	54.00	-7.78	41.58	4.64	Average	124	335
4	5350.00	58.73	74.00	-15.27	54.09	4.64	Peak	124	335
5	10600.00	45.16	54.00	-8.84	30.57	14.59	Average	100	314
6	10600.00	60.42	74.00	-13.58	45.83	14.59	Peak	100	314
7	15900.00	43.46	54.00	-10.54	28.82	14.64	Average	100	95
8	15900.00	55.97	74.00	-18.03	41.33	14.64	Peak	100	95

Note 1: Emission Level (dBUV/m) = SA Reading (dBUV/m) + Factor* (dB)

*Factor includes antenna factor , cable loss and amplifier gain

Note 2: Margin (dB) = Emission level (dBUV/m) – Limit (dBUV/m).

Modulation	11a	Test Freq. (MHz)	5300
Polarization	Vertical	Test Configuration	1



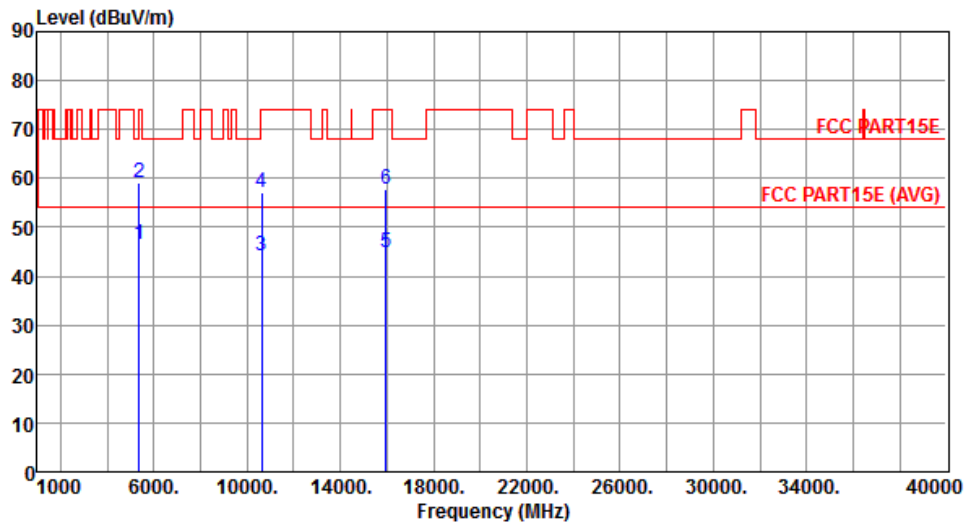
	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	5150.00	44.56	54.00	-9.44	40.16	4.40	Average	120	60
2	5150.00	57.13	74.00	-16.87	52.73	4.40	Peak	120	60
3	5350.00	46.73	54.00	-7.27	42.09	4.64	Average	120	60
4	5350.00	59.61	74.00	-14.39	54.97	4.64	Peak	120	60
5	10600.00	44.69	54.00	-9.31	30.10	14.59	Average	100	96
6	10600.00	57.78	74.00	-16.22	43.19	14.59	Peak	100	96
7	15900.00	44.01	54.00	-9.99	29.37	14.64	Average	100	328
8	15900.00	57.31	74.00	-16.69	42.67	14.64	Peak	100	328

Note 1: Emission Level (dBuV/m) = SA Reading (dBuV/m) + Factor* (dB)

*Factor includes antenna factor , cable loss and amplifier gain

Note 2: Margin (dB) = Emission level (dBuV/m) – Limit (dBuV/m).

Modulation	11a	Test Freq. (MHz)	5320
Polarization	Horizontal	Test Configuration	1



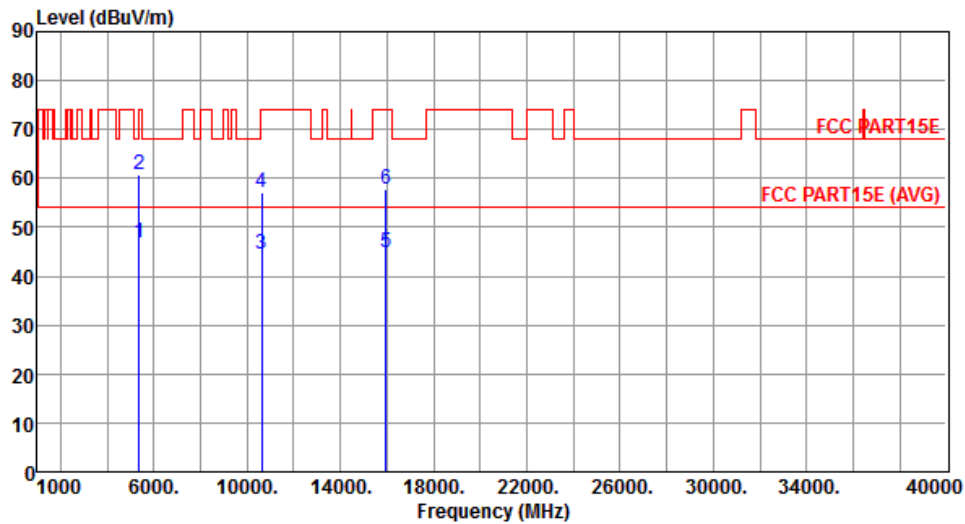
	Freq. MHz	Emission level dBUV/m	Limit dBUV/m	Margin dB	SA reading dBUV	Factor dB	Remark	ANT High cm	Turn Table deg
1	5350.00	46.58	54.00	-7.42	41.94	4.64	Average	106	336
2	5350.00	59.02	74.00	-14.98	54.38	4.64	Peak	106	336
3	10640.00	44.22	54.00	-9.78	29.58	14.64	Average	100	236
4	10640.00	57.14	74.00	-16.86	42.50	14.64	Peak	100	236
5	15960.00	44.83	54.00	-9.17	30.28	14.55	Average	100	142
6	15960.00	57.84	74.00	-16.16	43.29	14.55	Peak	100	142

Note 1: Emission Level (dBUV/m) = SA Reading (dBUV/m) + Factor* (dB)

*Factor includes antenna factor , cable loss and amplifier gain

Note 2: Margin (dB) = Emission level (dBUV/m) – Limit (dBUV/m).

Modulation	11a	Test Freq. (MHz)	5320
Polarization	Vertical	Test Configuration	1



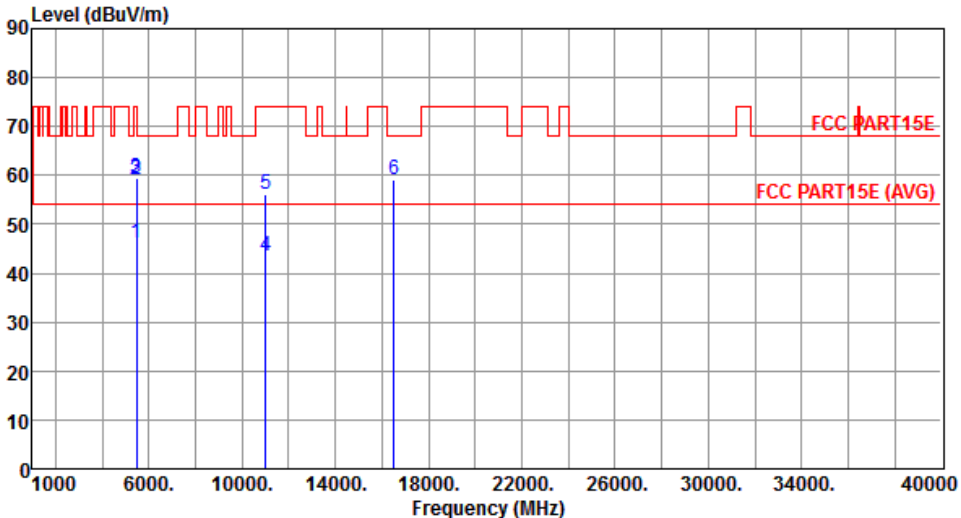
	Freq. MHz	Emission level dBUV/m	Limit dBUV/m	Margin dB	SA reading dBUV	Factor dB	Remark	ANT High cm	Turn Table deg
1	5350.00	46.93	54.00	-7.07	42.29	4.64	Average	121	57
2	5350.00	60.86	74.00	-13.14	56.22	4.64	Peak	121	57
3	10640.00	44.63	54.00	-9.37	29.99	14.64	Average	100	126
4	10640.00	57.27	74.00	-16.73	42.63	14.64	Peak	100	126
5	15960.00	44.73	54.00	-9.27	30.18	14.55	Average	100	263
6	15960.00	57.82	74.00	-16.18	43.27	14.55	Peak	100	263

Note 1: Emission Level (dBUV/m) = SA Reading (dBUV/m) + Factor* (dB)

*Factor includes antenna factor , cable loss and amplifier gain

Note 2: Margin (dB) = Emission level (dBUV/m) – Limit (dBUV/m).

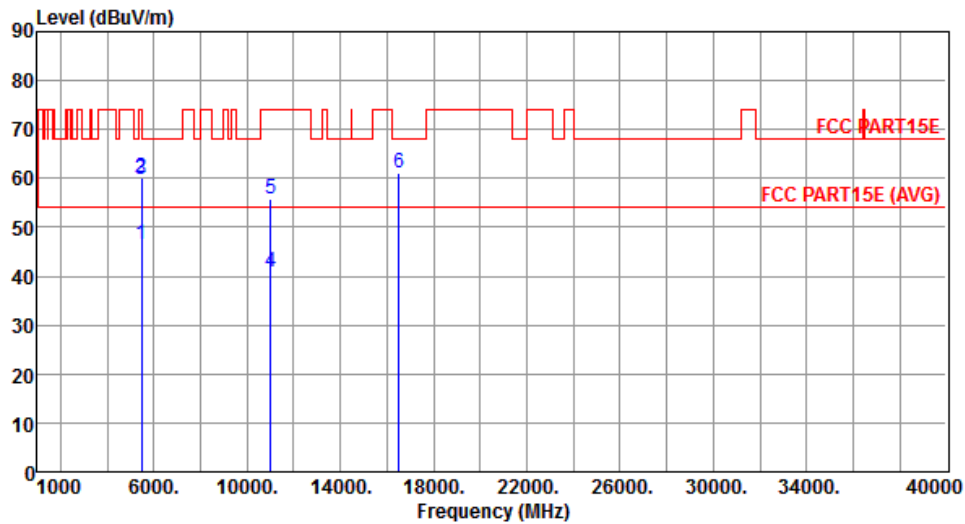
Modulation	11a	Test Freq. (MHz)	5500
Polarization	Horizontal	Test Configuration	1



	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	5460.00	46.04	54.00	-7.96	41.26	4.78	Average	100	310
2	5460.00	59.27	74.00	-14.73	54.49	4.78	Peak	100	310
3	5470.00	59.57	68.20	-8.63	54.78	4.79	Peak	100	310
4	11000.00	43.56	54.00	-10.44	28.50	15.06	Average	100	98
5	11000.00	56.05	74.00	-17.95	40.99	15.06	Peak	100	98
6	16500.00	59.27	68.20	-8.93	42.89	16.38	Peak	100	328

Note 1: Emission Level (dBuV/m) = SA Reading (dBuV/m) + Factor* (dB)
*Factor includes antenna factor , cable loss and amplifier gain
Note 2: Margin (dB) = Emission level (dBuV/m) – Limit (dBuV/m).

Modulation	11a	Test Freq. (MHz)	5500
Polarization	Vertical	Test Configuration	1



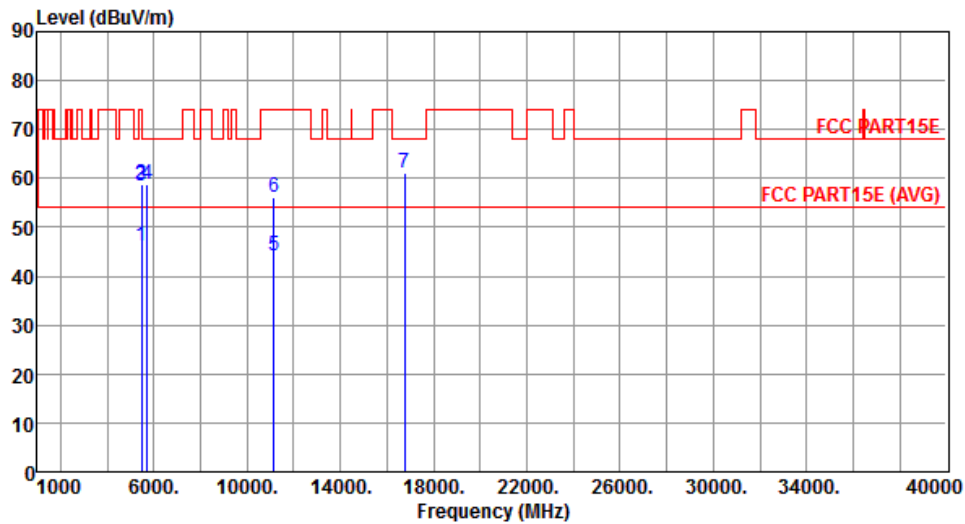
	Freq. MHz	Emission level dBUV/m	Limit dBUV/m	Margin dB	SA reading dBUV	Factor dB	Remark	ANT High cm	Turn Table deg
1	5460.00	46.53	54.00	-7.47	41.75	4.78	Average	110	105
2	5460.00	60.15	74.00	-13.85	55.37	4.78	Peak	110	105
3	5470.00	59.84	68.20	-8.36	55.05	4.79	Peak	110	105
4	11000.00	40.76	54.00	-13.24	25.70	15.06	Average	100	59
5	11000.00	55.73	74.00	-18.27	40.67	15.06	Peak	100	59
6	16500.00	61.02	68.20	-7.18	44.64	16.38	Peak	100	183

Note 1: Emission Level (dBUV/m) = SA Reading (dBUV/m) + Factor* (dB)

*Factor includes antenna factor , cable loss and amplifier gain

Note 2: Margin (dB) = Emission level (dBUV/m) – Limit (dBUV/m).

Modulation	11a	Test Freq. (MHz)	5580
Polarization	Horizontal	Test Configuration	1



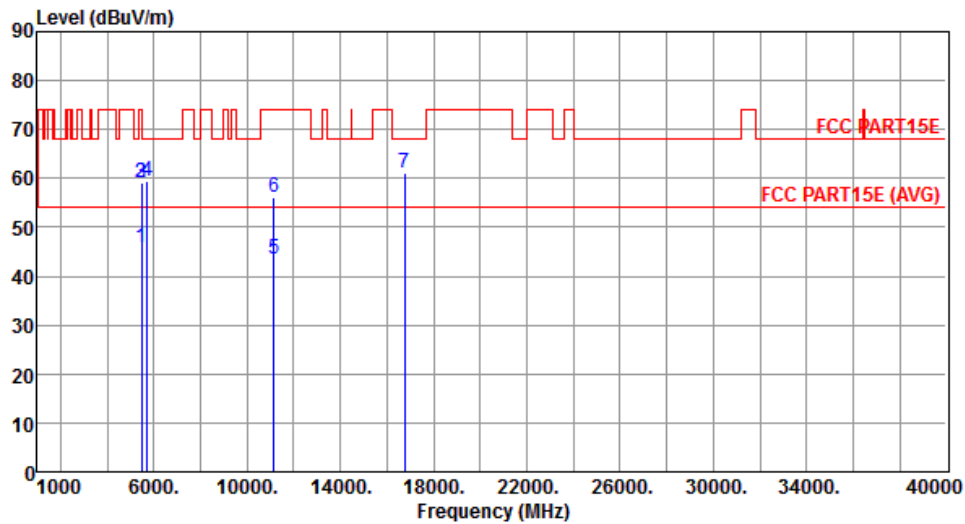
	Freq. MHz	Emission level dBUV/m	Limit dBUV/m	Margin dB	SA reading dBUV	Factor dB	Remark	ANT High cm	Turn Table deg
1	5460.00	46.04	54.00	-7.96	41.26	4.78	Average	100	349
2	5460.00	58.76	74.00	-15.24	53.98	4.78	Peak	100	349
3	5470.00	58.38	68.20	-9.82	53.59	4.79	Peak	100	349
4	5725.00	58.66	68.20	-9.54	53.57	5.09	Peak	100	349
5	11160.00	44.24	54.00	-9.76	29.03	15.21	Average	100	82
6	11160.00	56.22	74.00	-17.78	41.01	15.21	Peak	100	82
7	16740.00	61.03	68.20	-7.17	43.77	17.26	Peak	100	333

Note 1: Emission Level (dBUV/m) = SA Reading (dBUV/m) + Factor* (dB)

*Factor includes antenna factor , cable loss and amplifier gain

Note 2: Margin (dB) = Emission level (dBUV/m) – Limit (dBUV/m).

Modulation	11a	Test Freq. (MHz)	5580
Polarization	Vertical	Test Configuration	1



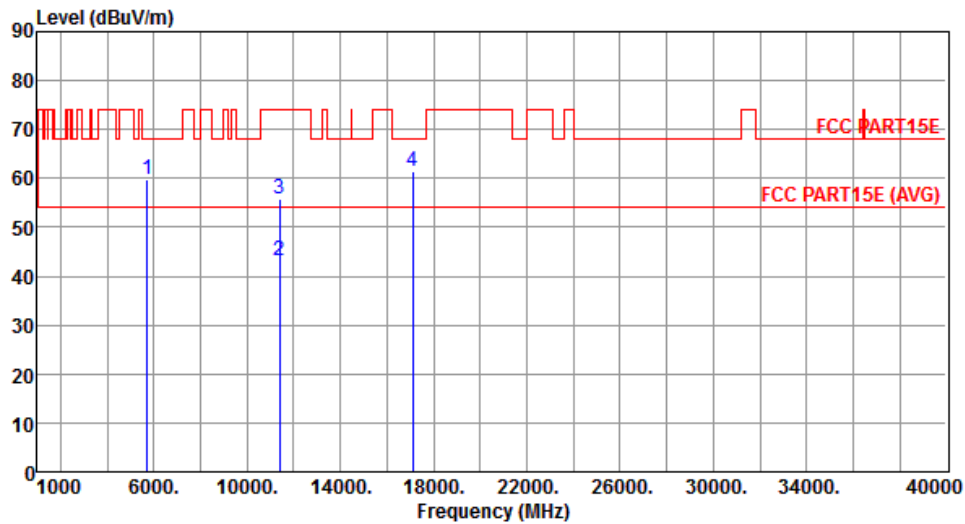
	Freq. MHz	Emission level dBUV/m	Limit dBUV/m	Margin dB	SA reading dBUV	Factor dB	Remark	ANT High cm	Turn Table deg
1	5460.00	45.96	54.00	-8.04	41.18	4.78	Average	100	48
2	5460.00	59.13	74.00	-14.87	54.35	4.78	Peak	100	48
3	5470.00	59.04	68.20	-9.16	54.25	4.79	Peak	100	48
4	5725.00	59.30	68.20	-8.90	54.21	5.09	Peak	100	48
5	11160.00	43.38	54.00	-10.62	28.17	15.21	Average	100	45
6	11160.00	56.19	74.00	-17.81	40.98	15.21	Peak	100	45
7	16740.00	61.18	68.20	-7.02	43.92	17.26	Peak	100	148

Note 1: Emission Level (dBUV/m) = SA Reading (dBUV/m) + Factor* (dB)

*Factor includes antenna factor , cable loss and amplifier gain

Note 2: Margin (dB) = Emission level (dBUV/m) – Limit (dBUV/m).

Modulation	11a	Test Freq. (MHz)	5700
Polarization	Horizontal	Test Configuration	1



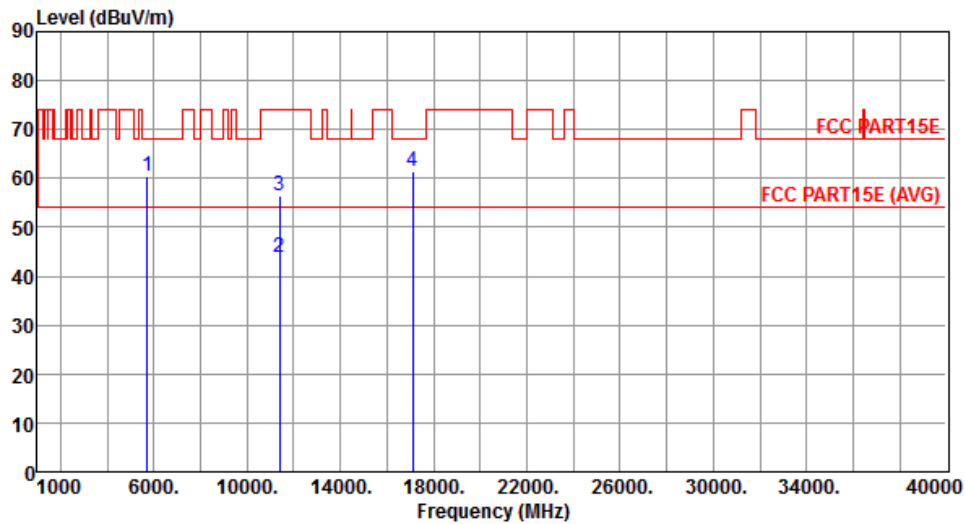
	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	5725.00	59.90	68.20	-8.30	54.81	5.09	Peak	100	331
2	11400.00	43.25	54.00	-10.75	27.81	15.44	Average	100	86
3	11400.00	55.84	74.00	-18.16	40.40	15.44	Peak	100	86
4	17100.00	61.31	68.20	-6.89	42.81	18.50	Peak	100	312

Note 1: Emission Level (dBuV/m) = SA Reading (dBuV/m) + Factor* (dB)

*Factor includes antenna factor , cable loss and amplifier gain

Note 2: Margin (dB) = Emission level (dBuV/m) – Limit (dBuV/m).

Modulation	11a	Test Freq. (MHz)	5700
Polarization	Vertical	Test Configuration	1



	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	5725.00	60.51	68.20	-7.69	55.42	5.09	Peak	185	58
2	11400.00	43.78	54.00	-10.22	28.34	15.44	Average	100	36
3	11400.00	56.49	74.00	-17.51	41.05	15.44	Peak	100	36
4	17100.00	61.49	68.20	-6.71	42.99	18.50	Peak	100	160

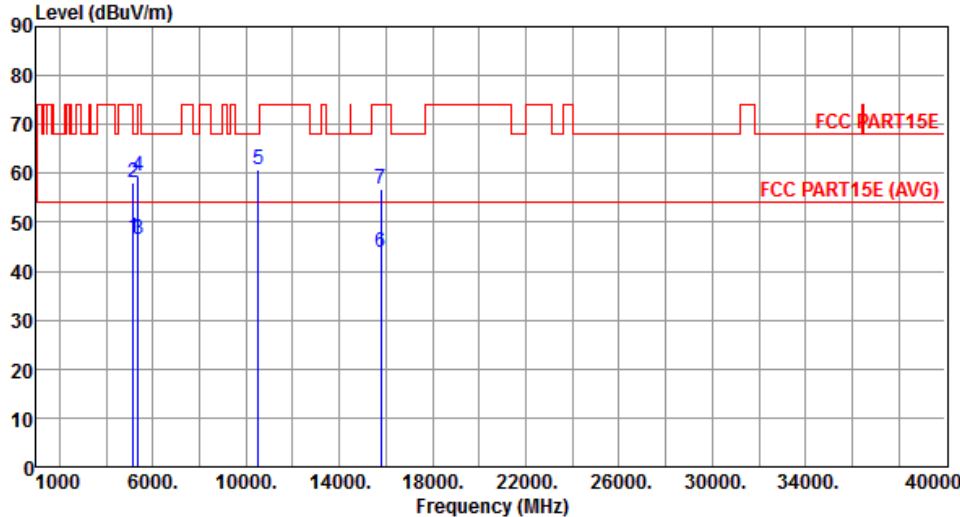
Note 1: Emission Level (dBuV/m) = SA Reading (dBuV/m) + Factor* (dB)

*Factor includes antenna factor , cable loss and amplifier gain

Note 2: Margin (dB) = Emission level (dBuV/m) – Limit (dBuV/m).

3.5.6 Transmitter Radiated Unwanted Emissions (Above 1GHz) for VHT20

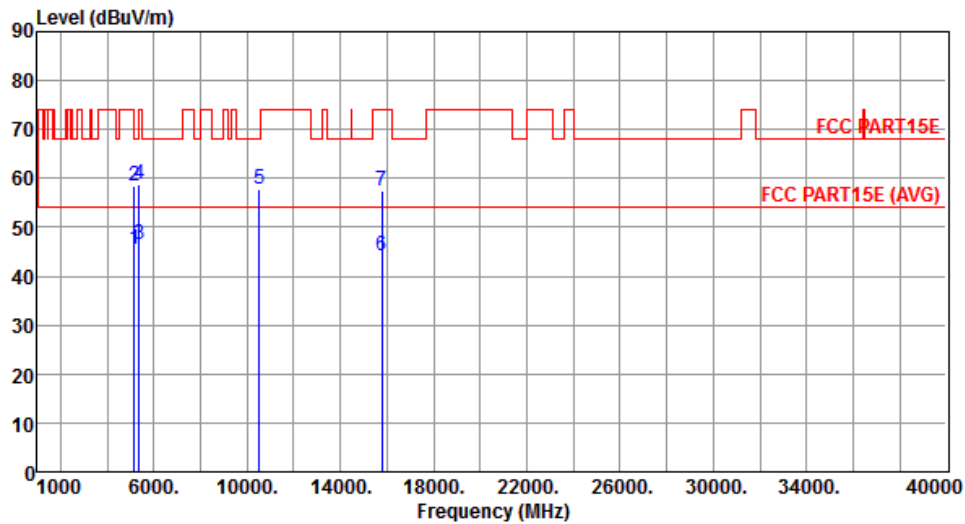
Modulation	VHT20	Test Freq. (MHz)	5260
Polarization	Horizontal	Test Configuration	1



	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	5150.00	46.89	54.00	-7.11	42.49	4.40	Average	268	196
2	5150.00	58.08	74.00	-15.92	53.68	4.40	Peak	268	196
3	5350.00	46.62	54.00	-7.38	41.98	4.64	Average	268	196
4	5350.00	59.44	74.00	-14.56	54.80	4.64	Peak	268	196
5	10520.00	60.63	68.20	-7.57	46.13	14.50	Peak	251	185
6	15780.00	43.96	54.00	-10.04	29.17	14.79	Average	202	214
7	15780.00	56.70	74.00	-17.30	41.91	14.79	Peak	202	214

Note 1: Emission Level (dBuV/m) = SA Reading (dBuV/m) + Factor* (dB)
 *Factor includes antenna factor , cable loss and amplifier gain
 Note 2: Margin (dB) = Emission level (dBuV/m) – Limit (dBuV/m).

Modulation	VHT20	Test Freq. (MHz)	5260
Polarization	Vertical	Test Configuration	1



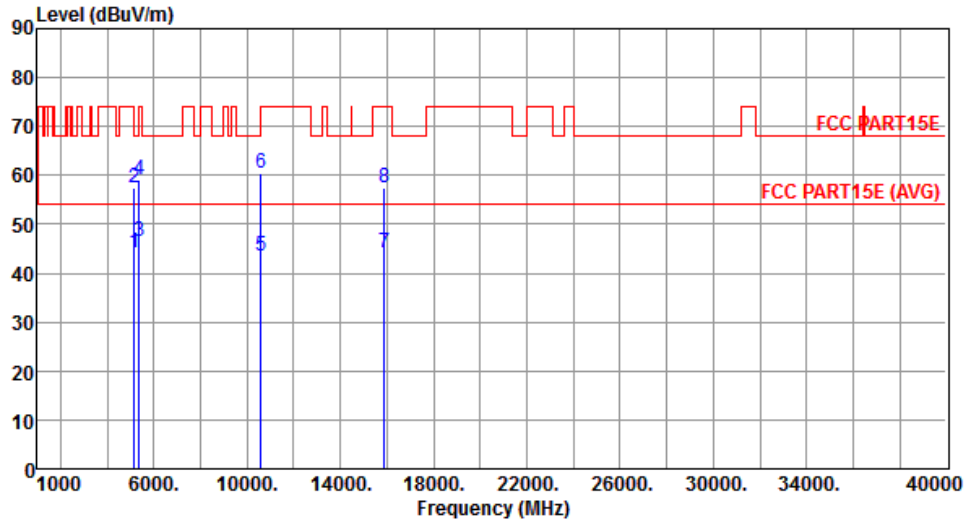
	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	5150.00	45.44	54.00	-8.56	41.04	4.40	Average	100	85
2	5150.00	58.31	74.00	-15.69	53.91	4.40	Peak	100	85
3	5350.00	46.42	54.00	-7.58	41.78	4.64	Average	100	85
4	5350.00	58.88	74.00	-15.12	54.24	4.64	Peak	100	85
5	10520.00	57.88	68.20	-10.32	43.38	14.50	Peak	100	88
6	15780.00	44.16	54.00	-9.84	29.37	14.79	Average	100	341
7	15780.00	57.34	74.00	-16.66	42.55	14.79	Peak	100	341

Note 1: Emission Level (dBuV/m) = SA Reading (dBuV/m) + Factor* (dB)

*Factor includes antenna factor , cable loss and amplifier gain

Note 2: Margin (dB) = Emission level (dBuV/m) – Limit (dBuV/m).

Modulation	VHT20	Test Freq. (MHz)	5300
Polarization	Horizontal	Test Configuration	1



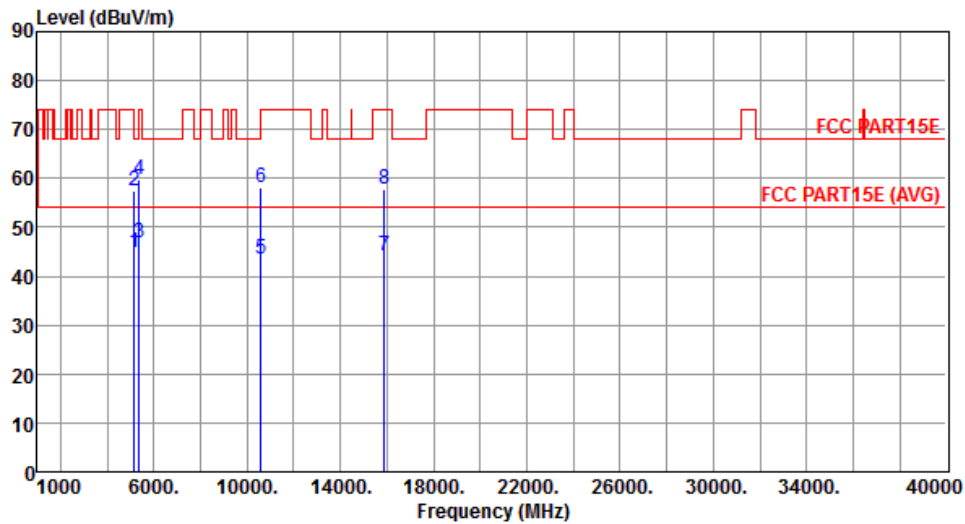
	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	5150.00	44.16	54.00	-9.84	39.76	4.40	Average	128	330
2	5150.00	57.41	74.00	-16.59	53.01	4.40	Peak	128	330
3	5350.00	46.35	54.00	-7.65	41.71	4.64	Average	128	330
4	5350.00	58.96	74.00	-15.04	54.32	4.64	Peak	128	330
5	10600.00	43.52	54.00	-10.48	28.93	14.59	Average	100	296
6	10600.00	60.59	74.00	-13.41	46.00	14.59	Peak	100	296
7	15900.00	44.18	54.00	-9.82	29.54	14.64	Average	100	334
8	15900.00	57.39	74.00	-16.61	42.75	14.64	Peak	100	334

Note 1: Emission Level (dBuV/m) = SA Reading (dBuV/m) + Factor* (dB)

*Factor includes antenna factor , cable loss and amplifier gain

Note 2: Margin (dB) = Emission level (dBuV/m) – Limit (dBuV/m).

Modulation	VHT20	Test Freq. (MHz)	5300
Polarization	Vertical	Test Configuration	1



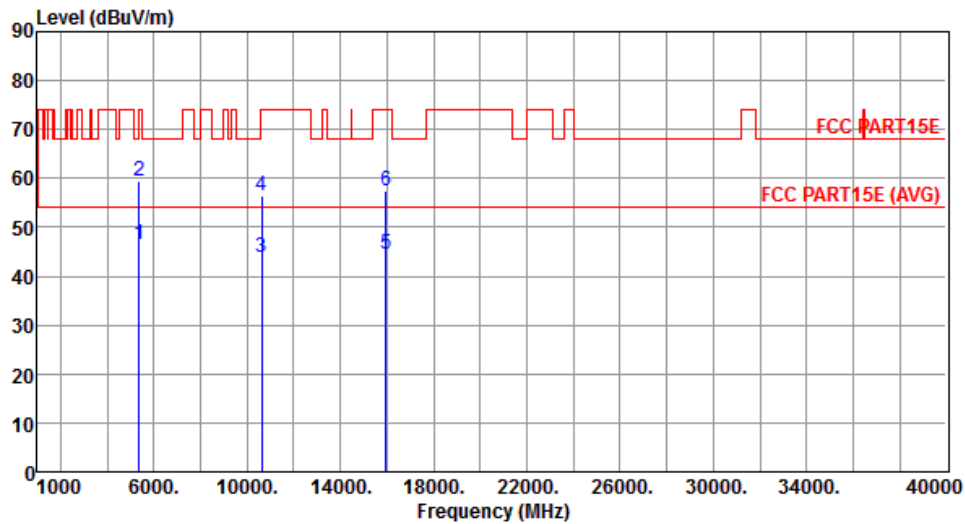
	Freq. MHz	Emission level dBUV/m	Limit dBUV/m	Margin dB	SA reading dBUV	Factor dB	Remark	ANT High cm	Turn Table deg
1	5150.00	44.75	54.00	-9.25	40.35	4.40	Average	125	64
2	5150.00	57.43	74.00	-16.57	53.03	4.40	Peak	125	64
3	5350.00	46.85	54.00	-7.15	42.21	4.64	Average	125	64
4	5350.00	59.84	74.00	-14.16	55.20	4.64	Peak	125	64
5	10600.00	43.48	54.00	-10.52	28.89	14.59	Average	120	55
6	10600.00	58.06	74.00	-15.94	43.47	14.59	Peak	120	55
7	15900.00	44.30	54.00	-9.70	29.66	14.64	Average	119	48
8	15900.00	57.73	74.00	-16.27	43.09	14.64	Peak	119	48

Note 1: Emission Level (dBUV/m) = SA Reading (dBUV/m) + Factor* (dB)

*Factor includes antenna factor, cable loss and amplifier gain

Note 2: Margin (dB) = Emission level (dBUV/m) – Limit (dBUV/m).

Modulation	VHT20	Test Freq. (MHz)	5320
Polarization	Horizontal	Test Configuration	1



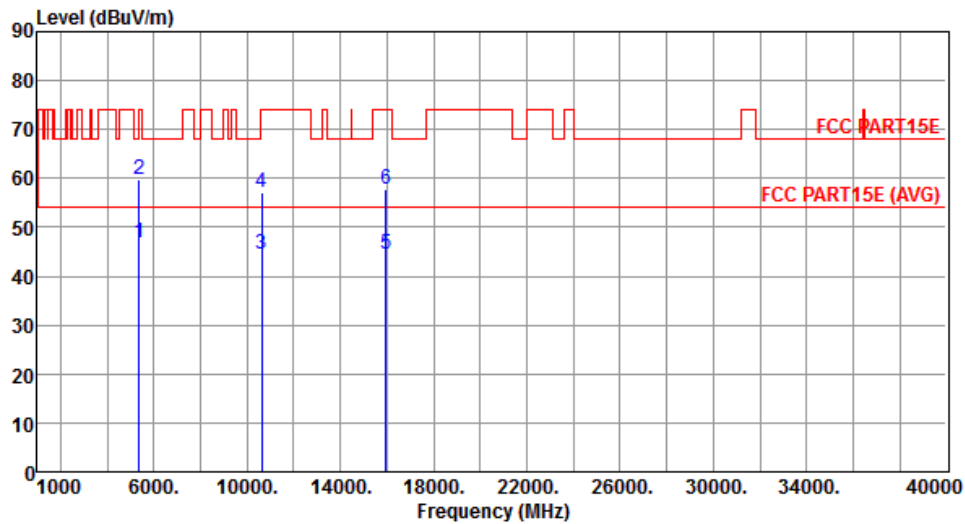
	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	5350.00	46.51	54.00	-7.49	41.87	4.64	Average	100	349
2	5350.00	59.61	74.00	-14.39	54.97	4.64	Peak	100	349
3	10640.00	43.89	54.00	-10.11	29.25	14.64	Average	100	240
4	10640.00	56.57	74.00	-17.43	41.93	14.64	Peak	100	240
5	15960.00	44.40	54.00	-9.60	29.85	14.55	Average	100	146
6	15960.00	57.40	74.00	-16.60	42.85	14.55	Peak	100	146

Note 1: Emission Level (dBuV/m) = SA Reading (dBuV/m) + Factor* (dB)

*Factor includes antenna factor , cable loss and amplifier gain

Note 2: Margin (dB) = Emission level (dBuV/m) – Limit (dBuV/m).

Modulation	VHT20	Test Freq. (MHz)	5320
Polarization	Vertical	Test Configuration	1



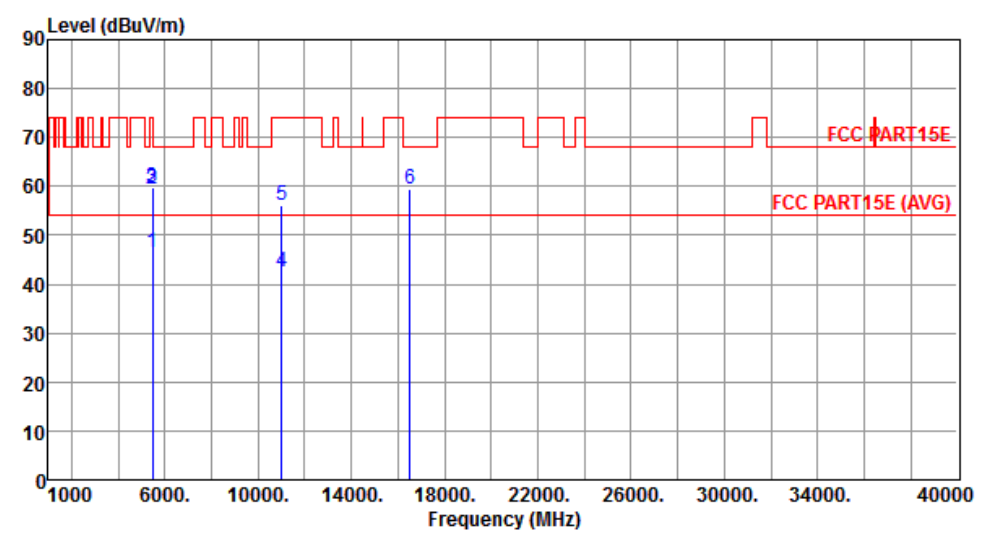
	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	5350.00	46.85	54.00	-7.15	42.21	4.64	Average	140	65
2	5350.00	59.71	74.00	-14.29	55.07	4.64	Peak	140	65
3	10640.00	44.46	54.00	-9.54	29.82	14.64	Average	100	105
4	10640.00	57.04	74.00	-16.96	42.40	14.64	Peak	100	105
5	15960.00	44.50	54.00	-9.50	29.95	14.55	Average	100	268
6	15960.00	57.77	74.00	-16.23	43.22	14.55	Peak	100	268

Note 1: Emission Level (dBuV/m) = SA Reading (dBuV/m) + Factor* (dB)

*Factor includes antenna factor , cable loss and amplifier gain

Note 2: Margin (dB) = Emission level (dBuV/m) – Limit (dBuV/m).

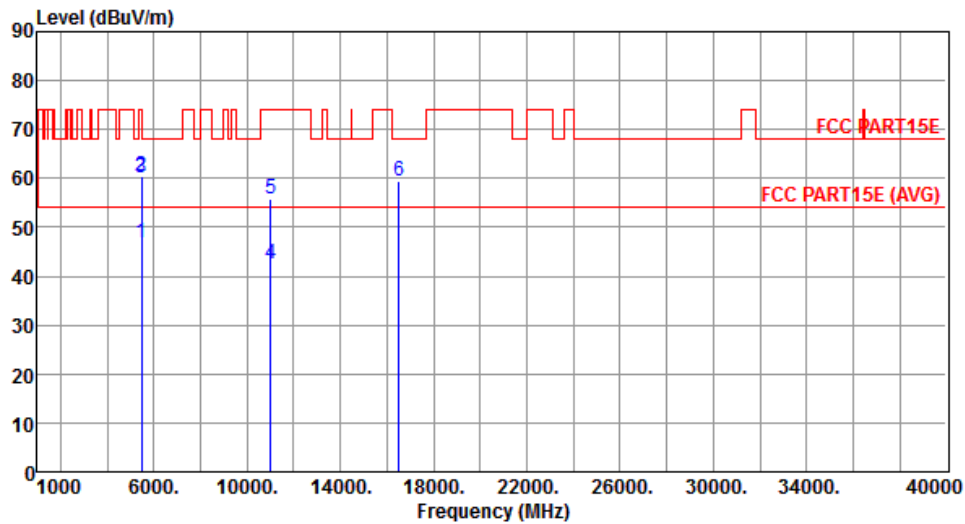
Modulation	VHT20	Test Freq. (MHz)	5500
Polarization	Horizontal	Test Configuration	1



	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	5460.00	46.36	54.00	-7.64	41.58	4.78	Average	100	318
2	5460.00	59.57	74.00	-14.43	54.79	4.78	Peak	100	318
3	5470.00	59.86	68.20	-8.34	55.07	4.79	Peak	100	318
4	11000.00	42.43	54.00	-11.57	27.37	15.06	Average	100	116
5	11000.00	56.03	74.00	-17.97	40.97	15.06	Peak	100	116
6	16500.00	59.49	68.20	-8.71	43.11	16.38	Peak	100	318

Note 1: Emission Level (dBuV/m) = SA Reading (dBuV/m) + Factor* (dB)
*Factor includes antenna factor , cable loss and amplifier gain
Note 2: Margin (dB) = Emission level (dBuV/m) – Limit (dBuV/m).

Modulation	VHT20	Test Freq. (MHz)	5500
Polarization	Vertical	Test Configuration	1



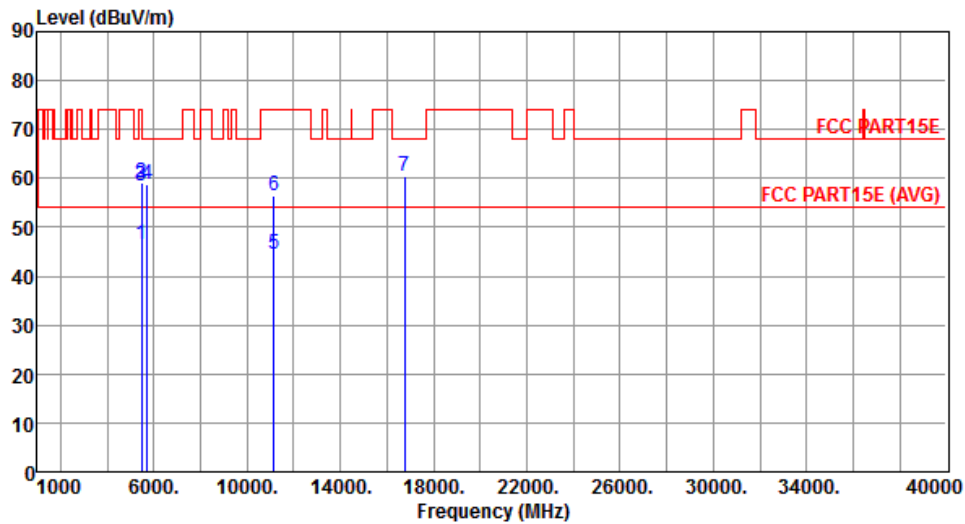
	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	5460.00	46.86	54.00	-7.14	42.08	4.78	Average	118	108
2	5460.00	60.46	74.00	-13.54	55.68	4.78	Peak	118	108
3	5470.00	59.97	68.20	-8.23	55.18	4.79	Peak	118	108
4	11000.00	42.39	54.00	-11.61	27.33	15.06	Average	100	65
5	11000.00	55.77	74.00	-18.23	40.71	15.06	Peak	100	65
6	16500.00	59.50	68.20	-8.70	43.12	16.38	Peak	100	188

Note 1: Emission Level (dBuV/m) = SA Reading (dBuV/m) + Factor* (dB)

*Factor includes antenna factor , cable loss and amplifier gain

Note 2: Margin (dB) = Emission level (dBuV/m) – Limit (dBuV/m).

Modulation	VHT20	Test Freq. (MHz)	5580
Polarization	Horizontal	Test Configuration	1



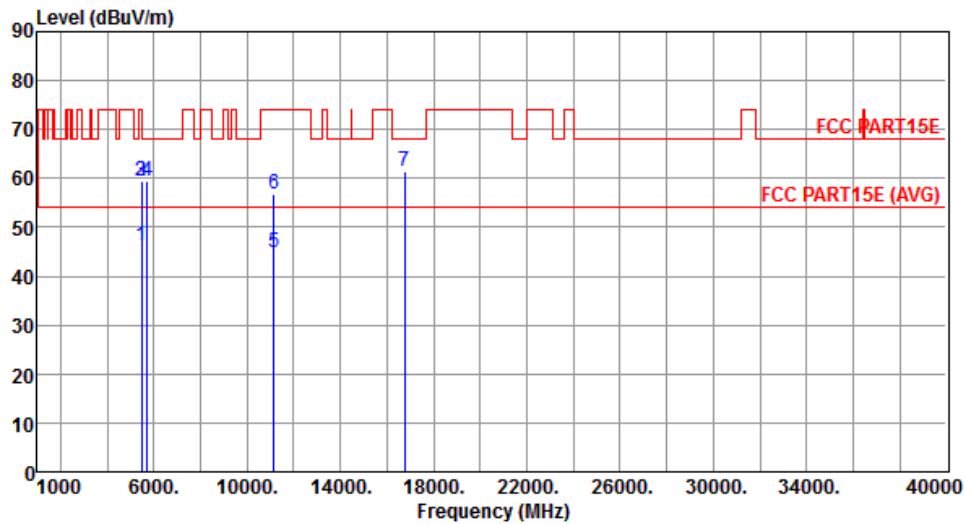
	Freq. MHz	Emission level dBUV/m	Limit dBUV/m	Margin dB	SA reading dBUV	Factor dB	Remark	ANT High cm	Turn Table deg
1	5460.00	46.41	54.00	-7.59	41.63	4.78	Average	100	345
2	5460.00	58.97	74.00	-15.03	54.19	4.78	Peak	100	345
3	5470.00	58.58	68.20	-9.62	53.79	4.79	Peak	100	345
4	5725.00	58.94	68.20	-9.26	53.85	5.09	Peak	100	345
5	11160.00	44.58	54.00	-9.42	29.37	15.21	Average	100	113
6	11160.00	56.48	74.00	-17.52	41.27	15.21	Peak	100	113
7	16740.00	60.52	68.20	-7.68	43.26	17.26	Peak	100	345

Note 1: Emission Level (dBUV/m) = SA Reading (dBUV/m) + Factor* (dB)

*Factor includes antenna factor , cable loss and amplifier gain

Note 2: Margin (dB) = Emission level (dBUV/m) – Limit (dBUV/m).

Modulation	VHT20	Test Freq. (MHz)	5580
Polarization	Vertical	Test Configuration	1



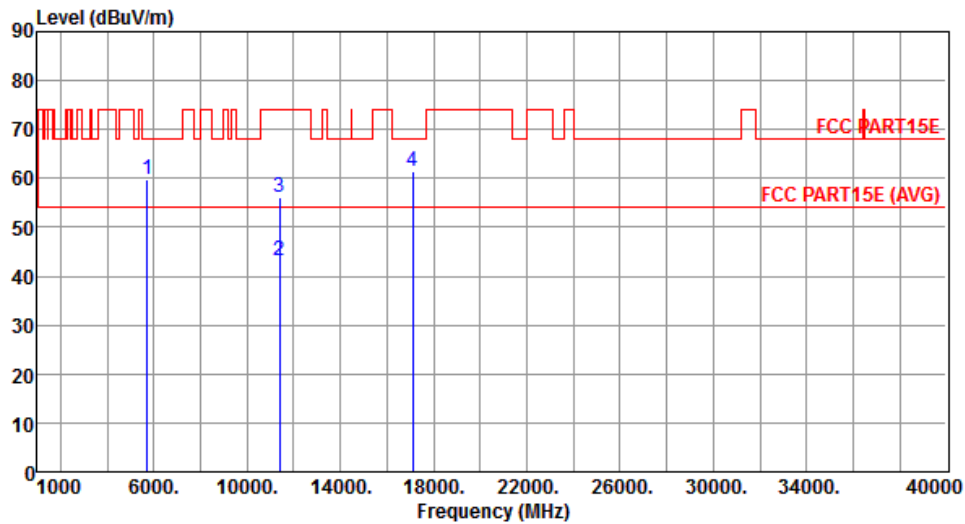
	Freq. MHz	Emission level dBUV/m	Limit dBUV/m	Margin dB	SA reading dBUV	Factor dB	Remark	ANT High cm	Turn Table deg
1	5460.00	46.18	54.00	-7.82	41.40	4.78	Average	100	52
2	5460.00	59.45	74.00	-14.55	54.67	4.78	Peak	100	52
3	5470.00	59.52	68.20	-8.68	54.73	4.79	Peak	100	52
4	5725.00	59.54	68.20	-8.66	54.45	5.09	Peak	100	52
5	11160.00	44.73	54.00	-9.27	29.52	15.21	Average	100	50
6	11160.00	56.84	74.00	-17.16	41.63	15.21	Peak	100	50
7	16740.00	61.56	68.20	-6.64	44.30	17.26	Peak	100	159

Note 1: Emission Level (dBUV/m) = SA Reading (dBUV/m) + Factor* (dB)

*Factor includes antenna factor , cable loss and amplifier gain

Note 2: Margin (dB) = Emission level (dBUV/m) – Limit (dBUV/m).

Modulation	VHT20	Test Freq. (MHz)	5700
Polarization	Horizontal	Test Configuration	1



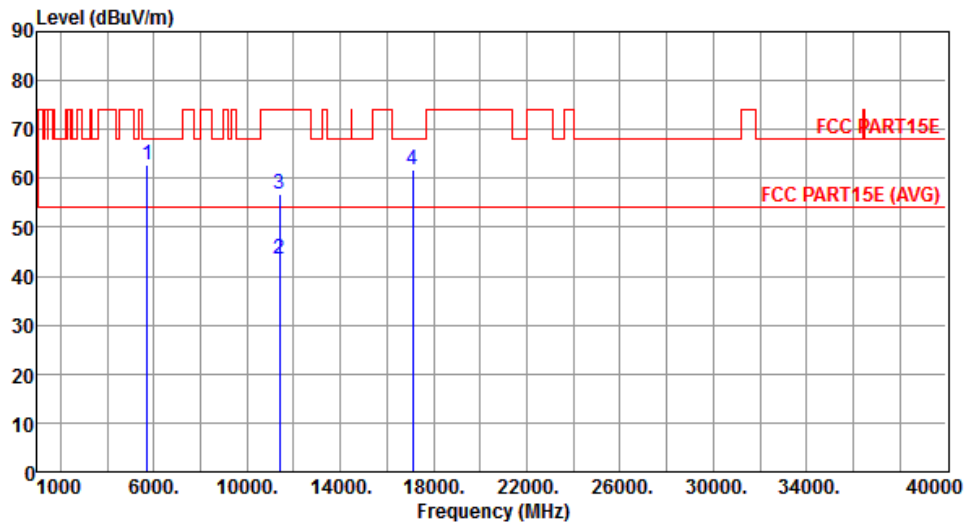
	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	5725.00	59.65	68.20	-8.55	54.56	5.09	Peak	100	331
2	11400.00	43.03	54.00	-10.97	27.59	15.44	Average	100	76
3	11400.00	56.02	74.00	-17.98	40.58	15.44	Peak	100	76
4	17100.00	61.47	68.20	-6.73	42.97	18.50	Peak	100	294

Note 1: Emission Level (dBuV/m) = SA Reading (dBuV/m) + Factor* (dB)

*Factor includes antenna factor , cable loss and amplifier gain

Note 2: Margin (dB) = Emission level (dBuV/m) – Limit (dBuV/m).

Modulation	VHT20	Test Freq. (MHz)	5700
Polarization	Vertical	Test Configuration	1



	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	5725.00	62.85	68.20	-5.35	57.76	5.09	Peak	210	90
2	11400.00	43.59	54.00	-10.41	28.15	15.44	Average	100	48
3	11400.00	56.76	74.00	-17.24	41.32	15.44	Peak	100	48
4	17100.00	61.66	68.20	-6.54	43.16	18.50	Peak	100	160

Note 1: Emission Level (dBuV/m) = SA Reading (dBuV/m) + Factor* (dB)

*Factor includes antenna factor , cable loss and amplifier gain

Note 2: Margin (dB) = Emission level (dBuV/m) – Limit (dBuV/m).

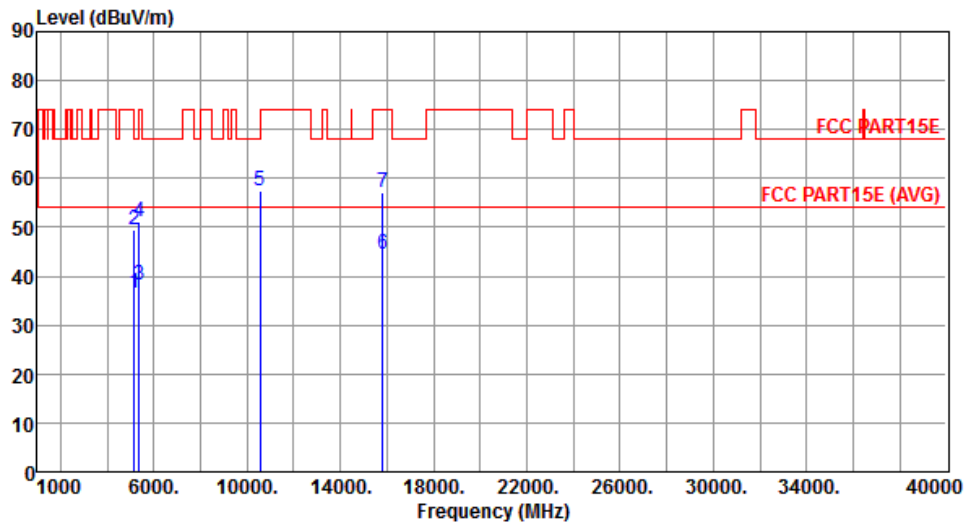
3.5.7 Transmitter Radiated Unwanted Emissions (Above 1GHz) for VHT40

Modulation	VHT40	Test Freq. (MHz)	5270
Polarization	Horizontal	Test Configuration	1

	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	5150.00	36.52	54.00	-17.48	32.12	4.40	Average	100	334
2	5150.00	49.04	74.00	-24.96	44.64	4.40	Peak	100	334
3	5350.00	38.19	54.00	-15.81	33.55	4.64	Average	100	334
4	5350.00	51.06	74.00	-22.94	46.42	4.64	Peak	100	334
5	10540.00	60.21	68.20	-7.99	45.69	14.52	Peak	120	84
6	15810.00	44.60	54.00	-9.40	29.85	14.75	Average	115	245
7	15810.00	56.98	74.00	-17.02	42.23	14.75	Peak	115	245

Note 1: Emission Level (dBuV/m) = SA Reading (dBuV/m) + Factor* (dB)
 *Factor includes antenna factor , cable loss and amplifier gain
 Note 2: Margin (dB) = Emission level (dBuV/m) – Limit (dBuV/m).

Modulation	VHT40	Test Freq. (MHz)	5270
Polarization	Vertical	Test Configuration	1



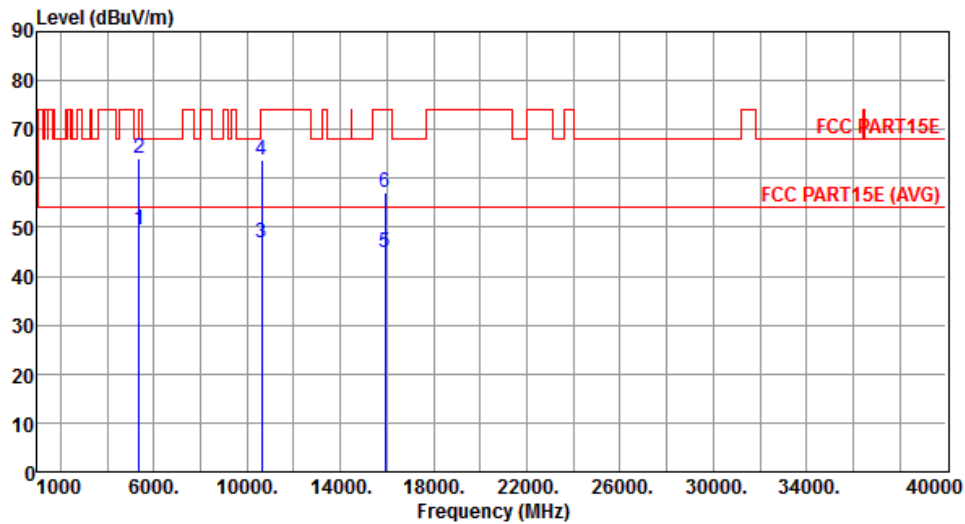
	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	5150.00	36.58	54.00	-17.42	32.18	4.40	Average	100	80
2	5150.00	49.34	74.00	-24.66	44.94	4.40	Peak	100	80
3	5350.00	38.31	54.00	-15.69	33.67	4.64	Average	100	80
4	5350.00	51.11	74.00	-22.89	46.47	4.64	Peak	100	80
5	10540.00	57.59	68.20	-10.61	43.07	14.52	Peak	134	267
6	15810.00	44.55	54.00	-9.45	29.80	14.75	Average	121	115
7	15810.00	57.24	74.00	-16.76	42.49	14.75	Peak	121	115

Note 1: Emission Level (dBuV/m) = SA Reading (dBuV/m) + Factor* (dB)

*Factor includes antenna factor, cable loss and amplifier gain

Note 2: Margin (dB) = Emission level (dBuV/m) – Limit (dBuV/m).

Modulation	VHT40	Test Freq. (MHz)	5310
Polarization	Horizontal	Test Configuration	1



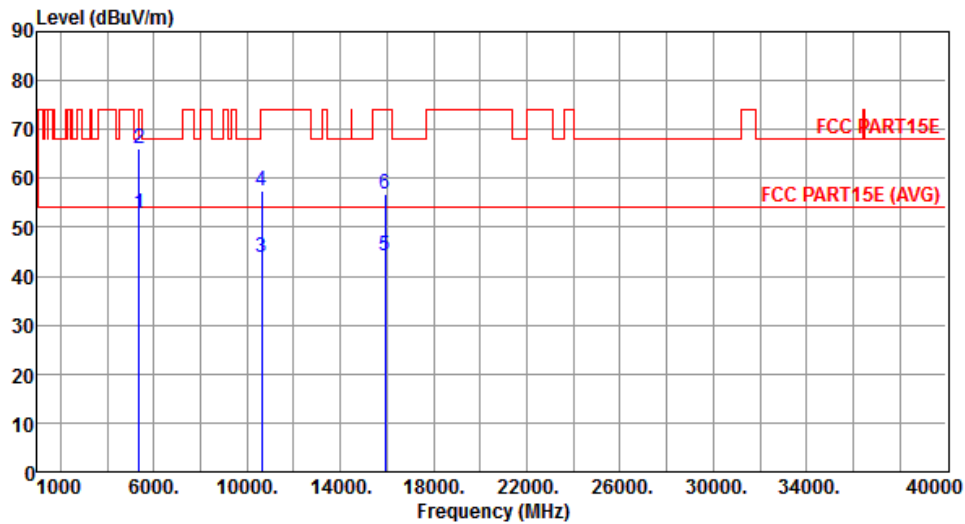
	Freq. MHz	Emission level dBUV/m	Limit dBUV/m	Margin dB	SA reading dBUV	Factor dB	Remark	ANT High cm	Turn Table deg
1	5350.00	49.46	54.00	-4.54	44.82	4.64	Average	100	335
2	5350.00	64.21	74.00	-9.79	59.57	4.64	Peak	100	335
3	10620.00	46.95	54.00	-7.05	32.34	14.61	Average	100	92
4	10620.00	63.77	74.00	-10.23	49.16	14.61	Peak	195	92
5	15930.00	44.68	54.00	-9.32	30.08	14.60	Average	100	242
6	15930.00	57.06	74.00	-16.94	42.46	14.60	Peak	100	242

Note 1: Emission Level (dBUV/m) = SA Reading (dBUV/m) + Factor* (dB)

*Factor includes antenna factor , cable loss and amplifier gain

Note 2: Margin (dB) = Emission level (dBUV/m) – Limit (dBUV/m).

Modulation	VHT40	Test Freq. (MHz)	5310
Polarization	Vertical	Test Configuration	1



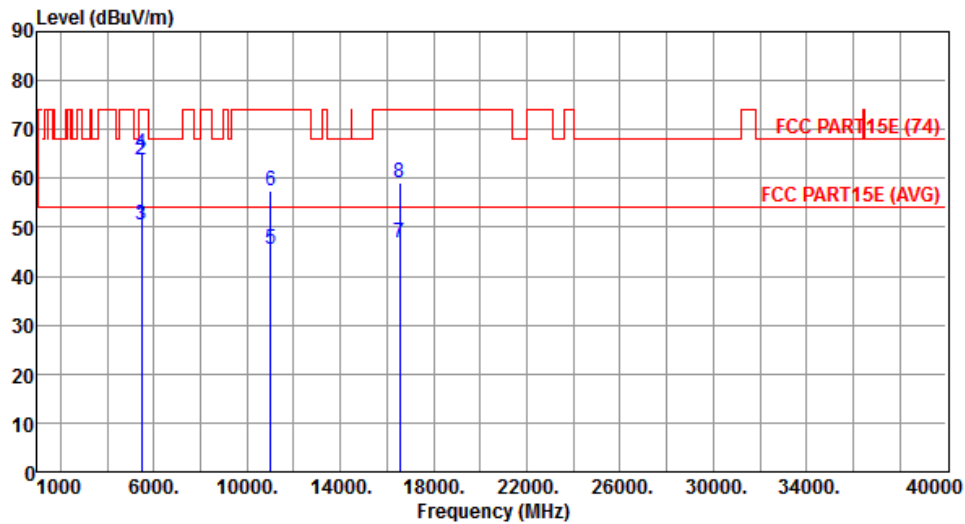
	Freq. MHz	Emission level dBUV/m	Limit dBUV/m	Margin dB	SA reading dBUV	Factor dB	Remark	ANT High cm	Turn Table deg
1	5350.00	52.68	54.00	-1.32	48.04	4.64	Average	100	76
2	5350.00	65.97	74.00	-8.03	61.33	4.64	Peak	100	76
3	10620.00	43.98	54.00	-10.02	29.37	14.61	Average	100	265
4	10620.00	57.48	74.00	-16.52	42.87	14.61	Peak	123	265
5	15930.00	44.12	54.00	-9.88	29.52	14.60	Average	145	121
6	15930.00	56.82	74.00	-17.18	42.22	14.60	Peak	145	121

Note 1: Emission Level (dBUV/m) = SA Reading (dBUV/m) + Factor* (dB)

*Factor includes antenna factor , cable loss and amplifier gain

Note 2: Margin (dB) = Emission level (dBUV/m) – Limit (dBUV/m).

Modulation	VHT40	Test Freq. (MHz)	5510
Polarization	Horizontal	Test Configuration	1



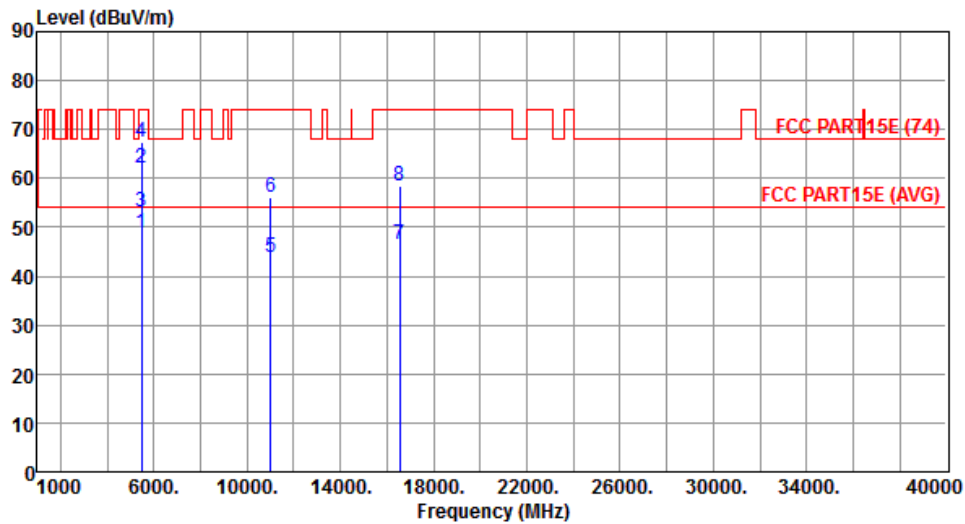
	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	5460.00	50.52	54.00	-3.48	45.74	4.78	Average	100	311
2	5460.00	63.81	74.00	-10.19	59.03	4.78	Peak	100	311
3	5470.00	50.50	54.00	-3.50	45.71	4.79	Average	100	311
4	5470.00	65.18	74.00	-8.82	60.39	4.79	Peak	100	311
5	11020.00	45.60	54.00	-8.40	30.52	15.08	Average	115	41
6	11020.00	57.51	74.00	-16.49	42.43	15.08	Peak	115	41
7	16530.00	46.71	54.00	-7.29	30.22	16.49	Average	100	287
8	16530.00	59.16	74.00	-14.84	42.67	16.49	Peak	100	287

Note 1: Emission Level (dBuV/m) = SA Reading (dBuV/m) + Factor* (dB)

*Factor includes antenna factor , cable loss and amplifier gain

Note 2: Margin (dB) = Emission level (dBuV/m) – Limit (dBuV/m).

Modulation	VHT40	Test Freq. (MHz)	5510
Polarization	Vertical	Test Configuration	1



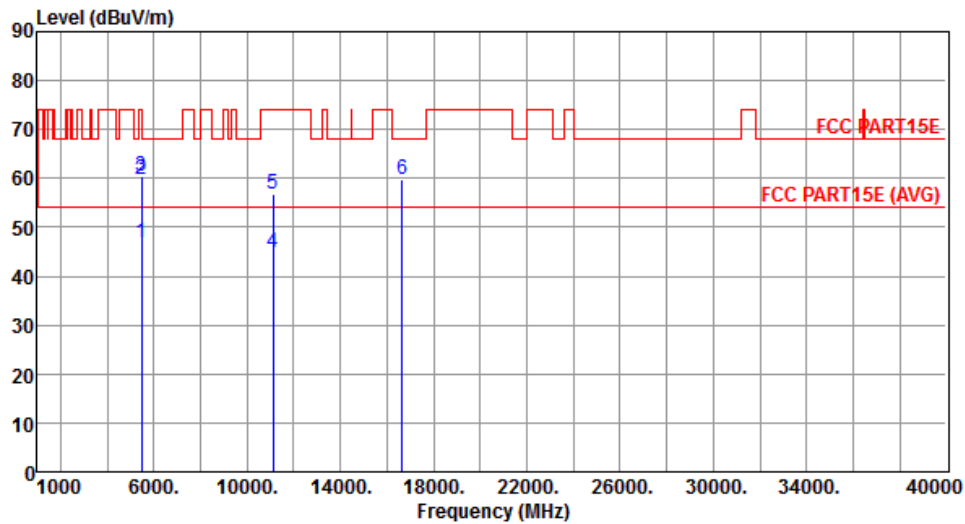
	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	5460.00	48.68	54.00	-5.32	43.90	4.78	Average	100	67
2	5460.00	61.94	74.00	-12.06	57.16	4.78	Peak	100	67
3	5470.00	52.98	54.00	-1.02	48.19	4.79	Average	100	67
4	5470.00	67.40	74.00	-6.60	62.61	4.79	Peak	100	67
5	11020.00	43.74	54.00	-10.26	28.66	15.08	Average	122	276
6	11020.00	56.05	74.00	-17.95	40.97	15.08	Peak	122	276
7	16530.00	46.60	54.00	-7.40	30.11	16.49	Average	100	113
8	16530.00	58.52	74.00	-15.48	42.03	16.49	Peak	100	113

Note 1: Emission Level (dBuV/m) = SA Reading (dBuV/m) + Factor* (dB)

*Factor includes antenna factor , cable loss and amplifier gain

Note 2: Margin (dB) = Emission level (dBuV/m) – Limit (dBuV/m).

Modulation	VHT40	Test Freq. (MHz)	5550
Polarization	Horizontal	Test Configuration	1



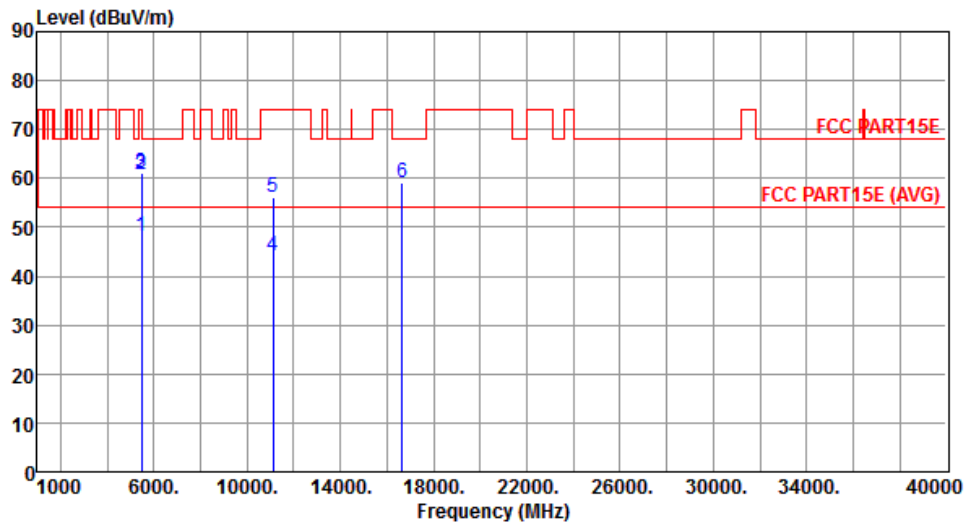
	Freq. MHz	Emission level dBUV/m	Limit dBUV/m	Margin dB	SA reading dBUV	Factor dB	Remark	ANT High cm	Turn Table deg
1	5460.00	46.91	54.00	-7.09	42.13	4.78	Average	100	336
2	5460.00	59.89	74.00	-14.11	55.11	4.78	Peak	100	336
3	5470.00	60.38	68.20	-7.82	55.59	4.79	Peak	100	336
4	11100.00	44.83	54.00	-9.17	29.67	15.16	Average	108	48
5	11100.00	56.74	74.00	-17.26	41.58	15.16	Peak	108	48
6	16650.00	59.81	68.20	-8.39	42.88	16.93	Peak	105	298

Note 1: Emission Level (dBUV/m) = SA Reading (dBUV/m) + Factor* (dB)

*Factor includes antenna factor , cable loss and amplifier gain

Note 2: Margin (dB) = Emission level (dBUV/m) – Limit (dBUV/m).

Modulation	VHT40	Test Freq. (MHz)	5550
Polarization	Vertical	Test Configuration	1



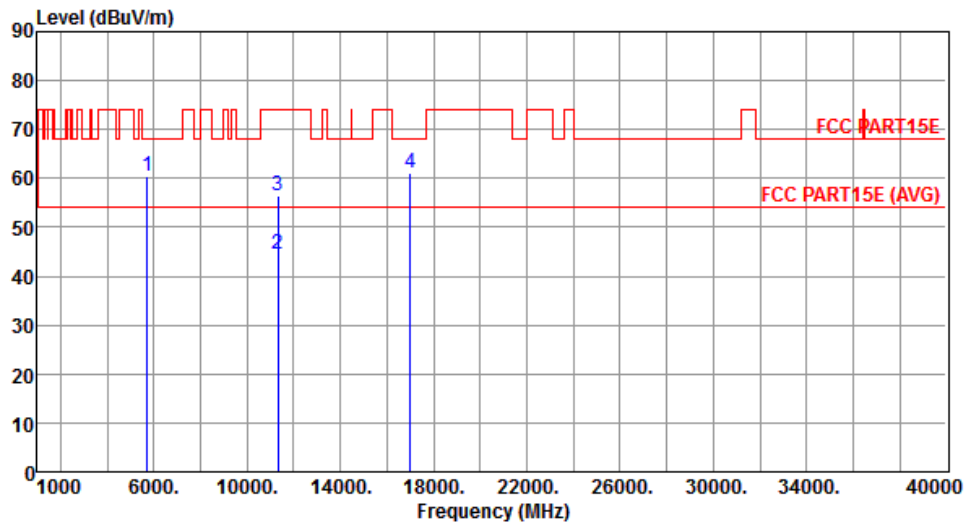
	Freq. MHz	Emission level dBUV/m	Limit dBUV/m	Margin dB	SA reading dBUV	Factor dB	Remark	ANT High cm	Turn Table deg
1	5460.00	48.10	54.00	-5.90	43.32	4.78	Average	100	62
2	5460.00	60.73	74.00	-13.27	55.95	4.78	Peak	100	62
3	5470.00	61.21	68.20	-6.99	56.42	4.79	Peak	100	62
4	11100.00	44.13	54.00	-9.87	28.97	15.16	Average	111	282
5	11100.00	56.28	74.00	-17.72	41.12	15.16	Peak	111	282
6	16650.00	59.14	68.20	-9.06	42.21	16.93	Peak	100	119

Note 1: Emission Level (dBUV/m) = SA Reading (dBUV/m) + Factor* (dB)

*Factor includes antenna factor , cable loss and amplifier gain

Note 2: Margin (dB) = Emission level (dBUV/m) – Limit (dBUV/m).

Modulation	VHT40	Test Freq. (MHz)	5670
Polarization	Horizontal	Test Configuration	1



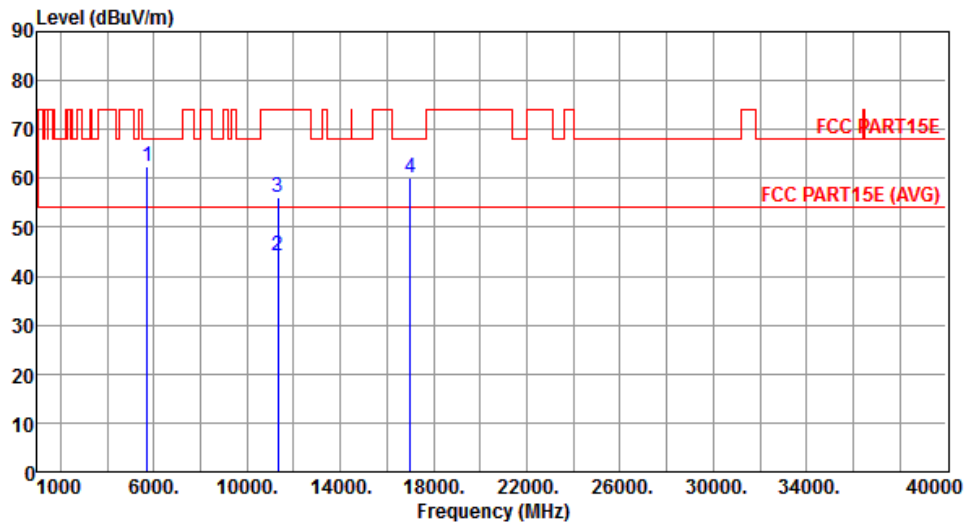
	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	5725.00	60.48	68.20	-7.72	55.39	5.09	Peak	100	334
2	11340.00	44.65	54.00	-9.35	29.26	15.39	Average	100	65
3	11340.00	56.54	74.00	-17.46	41.15	15.39	Peak	100	65
4	17010.00	61.17	68.20	-7.03	42.92	18.25	Peak	100	308

Note 1: Emission Level (dBuV/m) = SA Reading (dBuV/m) + Factor* (dB)

*Factor includes antenna factor , cable loss and amplifier gain

Note 2: Margin (dB) = Emission level (dBuV/m) – Limit (dBuV/m).

Modulation	VHT40	Test Freq. (MHz)	5670
Polarization	Vertical	Test Configuration	1



	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	5725.00	62.48	68.20	-5.72	57.39	5.09	Peak	177	89
2	11340.00	44.29	54.00	-9.71	28.90	15.39	Average	100	269
3	11340.00	56.12	74.00	-17.88	40.73	15.39	Peak	100	269
4	17010.00	60.18	68.20	-8.02	41.93	18.25	Peak	100	126

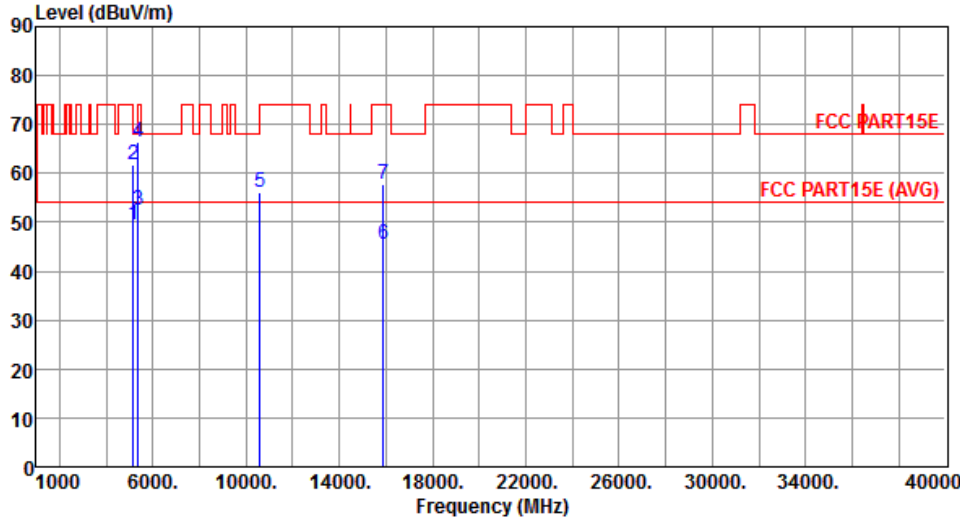
Note 1: Emission Level (dBuV/m) = SA Reading (dBuV/m) + Factor* (dB)

*Factor includes antenna factor , cable loss and amplifier gain

Note 2: Margin (dB) = Emission level (dBuV/m) – Limit (dBuV/m).

3.5.8 Transmitter Radiated Unwanted Emissions (Above 1GHz) for VHT80

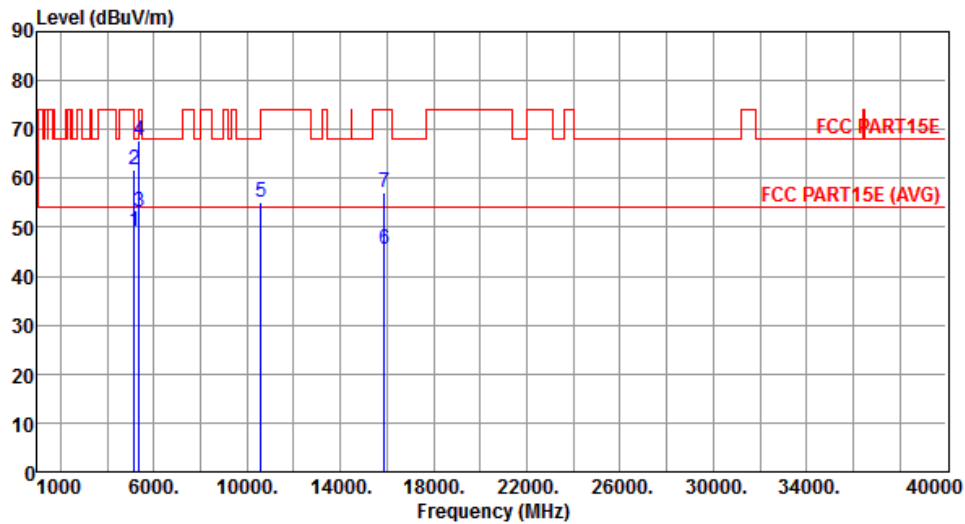
Modulation	VHT80	Test Freq. (MHz)	5290
Polarization	Horizontal	Test Configuration	1



	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	5150.00	49.43	54.00	-4.57	45.03	4.40	Average	100	337
2	5150.00	61.62	74.00	-12.38	57.22	4.40	Peak	100	337
3	5350.00	52.61	54.00	-1.39	47.97	4.64	Average	100	337
4	5350.00	66.34	74.00	-7.66	61.70	4.64	Peak	100	337
5	10580.00	56.04	68.20	-12.16	41.48	14.56	Peak	100	107
6	15870.00	45.55	54.00	-8.45	30.88	14.67	Average	100	265
7	15870.00	57.67	74.00	-16.33	43.00	14.67	Peak	100	265

Note 1: Emission Level (dBuV/m) = SA Reading (dBuV/m) + Factor* (dB)
 *Factor includes antenna factor , cable loss and amplifier gain
 Note 2: Margin (dB) = Emission level (dBuV/m) – Limit (dBuV/m).

Modulation	VHT80	Test Freq. (MHz)	5290
Polarization	Vertical	Test Configuration	1



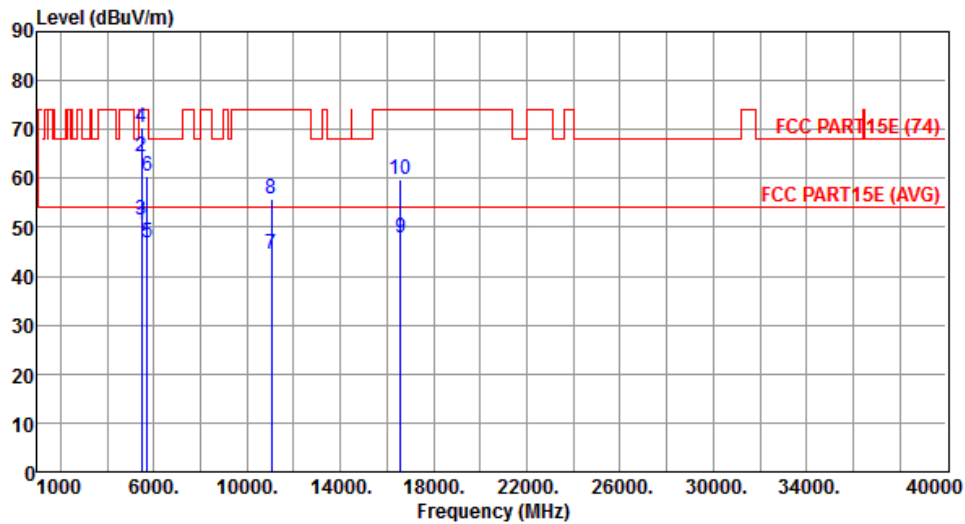
	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	5150.00	49.24	54.00	-4.76	44.84	4.40	Average	100	64
2	5150.00	61.73	74.00	-12.27	57.33	4.40	Peak	100	64
3	5350.00	52.99	54.00	-1.01	48.35	4.64	Average	100	64
4	5350.00	67.74	74.00	-6.26	63.10	4.64	Peak	100	64
5	10580.00	55.21	68.20	-12.99	40.65	14.56	Peak	100	311
6	15870.00	45.51	54.00	-8.49	30.84	14.67	Average	100	91
7	15870.00	57.11	74.00	-16.89	42.44	14.67	Peak	100	91

Note 1: Emission Level (dBuV/m) = SA Reading (dBuV/m) + Factor* (dB)

*Factor includes antenna factor , cable loss and amplifier gain

Note 2: Margin (dB) = Emission level (dBuV/m) – Limit (dBuV/m).

Modulation	VHT80	Test Freq. (MHz)	5530
Polarization	Horizontal	Test Configuration	1



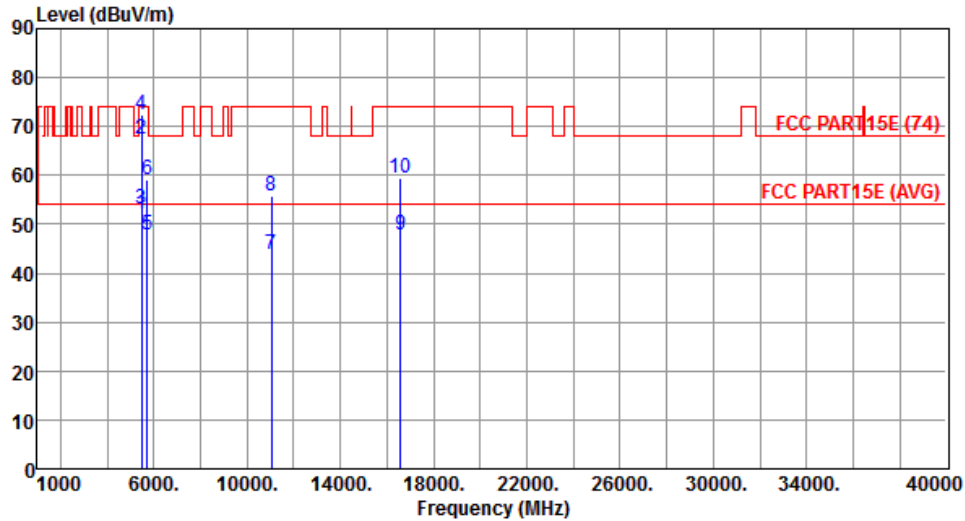
	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	5460.00	50.43	54.00	-3.57	45.65	4.78	Average	100	335
2	5460.00	64.43	74.00	-9.57	59.65	4.78	Peak	100	335
3	5470.00	51.45	54.00	-2.55	46.66	4.79	Average	100	335
4	5470.00	70.31	74.00	-3.69	65.52	4.79	Peak	100	335
5	5725.00	46.81	54.00	-7.19	41.72	5.09	Average	100	335
6	5725.00	60.60	74.00	-13.40	55.51	5.09	Peak	100	335
7	11060.00	44.36	54.00	-9.64	29.25	15.11	Average	100	116
8	11060.00	55.76	74.00	-18.24	40.65	15.11	Peak	100	116
9	16590.00	47.92	54.00	-6.08	31.20	16.72	Average	100	242
10	16590.00	59.79	74.00	-14.21	43.07	16.72	Peak	100	242

Note 1: Emission Level (dBuV/m) = SA Reading (dBuV/m) + Factor* (dB)

*Factor includes antenna factor , cable loss and amplifier gain

Note 2: Margin (dB) = Emission level (dBuV/m) – Limit (dBuV/m).

Modulation	VHT80	Test Freq. (MHz)	5530
Polarization	Vertical	Test Configuration	1



	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	5460.00	52.15	54.00	-1.85	47.37	4.78	Average	100	61
2	5460.00	67.50	74.00	-6.50	62.72	4.78	Peak	100	61
3	5470.00	52.98	54.00	-1.02	48.19	4.79	Average	100	40
4	5470.00	72.43	74.00	-1.57	67.64	4.79	Peak	100	40
5	5725.00	47.69	54.00	-6.31	42.60	5.09	Average	100	40
6	5725.00	59.17	74.00	-14.83	54.08	5.09	Peak	100	40
7	11060.00	44.00	54.00	-10.00	28.89	15.11	Average	100	316
8	11060.00	55.92	74.00	-18.08	40.81	15.11	Peak	100	316
9	16590.00	47.95	54.00	-6.05	31.23	16.72	Average	100	80
10	16590.00	59.59	74.00	-14.41	42.87	16.72	Peak	100	80

Note 1: Emission Level (dBuV/m) = SA Reading (dBuV/m) + Factor* (dB)

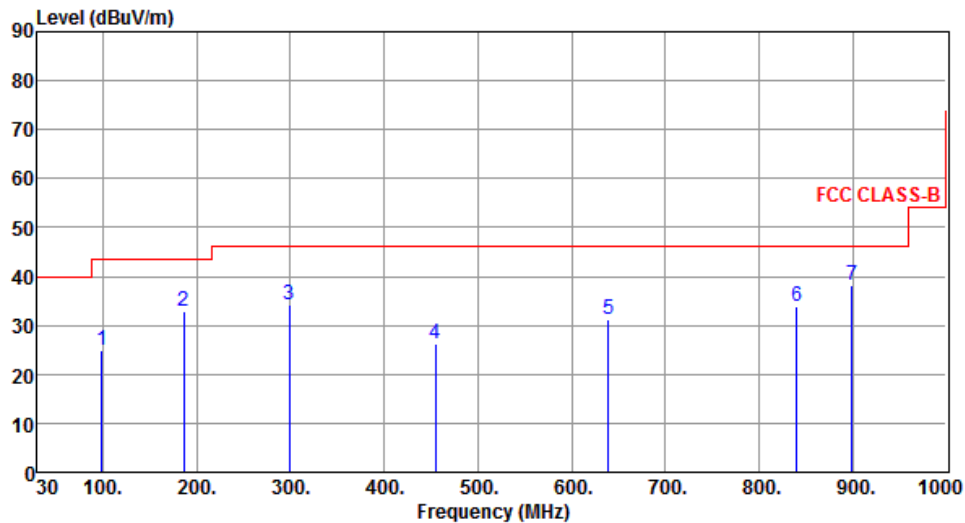
*Factor includes antenna factor , cable loss and amplifier gain

Note 2: Margin (dB) = Emission level (dBuV/m) – Limit (dBuV/m).

Test Configuration 2: Internal PIFA antenna

3.5.9 Transmitter Radiated Unwanted Emissions (Below 1GHz)

Modulation	VHT40	Test Freq. (MHz)	5270
Polarization	Horizontal	Test Configuration	2



	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	98.87	24.82	43.50	-18.68	46.32	-21.50	Peak	---	---
2	186.17	33.02	43.50	-10.48	51.72	-18.70	Peak	---	---
3	298.69	34.23	46.00	-11.77	50.05	-15.82	Peak	---	---
4	454.86	26.23	46.00	-19.77	38.30	-12.07	Peak	---	---
5	639.16	31.16	46.00	-14.84	40.01	-8.85	Peak	---	---
6	839.95	33.99	46.00	-12.01	40.00	-6.01	Peak	---	---
7	899.12	38.18	46.00	-7.82	43.41	-5.23	Peak	---	---

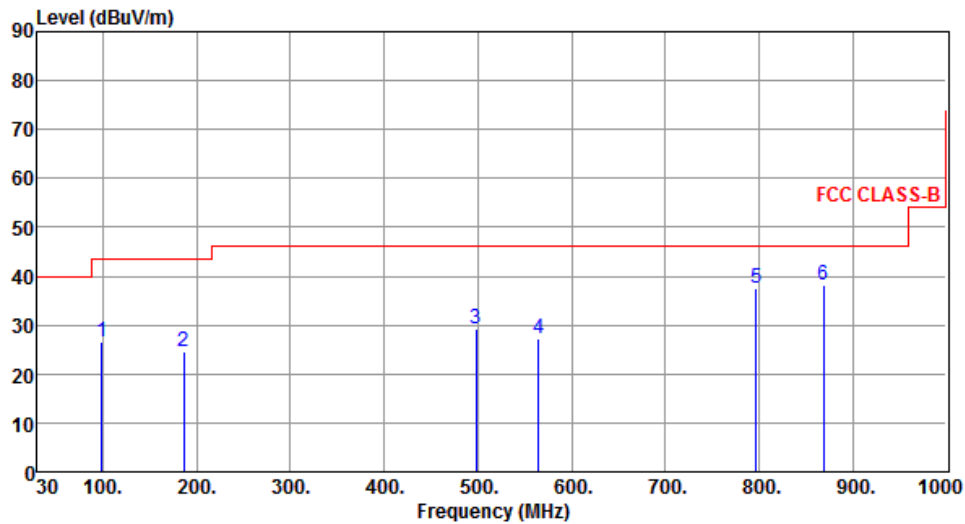
Note 1: Emission Level (dBuV/m) = SA Reading (dBuV/m) + Factor* (dB)

*Factor includes antenna factor , cable loss and amplifier gain

Note 2: Margin (dB) = Emission level (dBuV/m) – Limit (dBuV/m).

Note 3: All spurious emissions below 30MHz are more than 20 dB below the limit.

Modulation	VHT40	Test Freq. (MHz)	5270
Polarization	Vertical	Test Configuration	2



	Freq. MHz	Emission level dBUV/m	Limit dBUV/m	Margin dB	SA reading dBUV	Factor dB	Remark	ANT High cm	Turn Table deg
1	98.87	26.72	43.50	-16.78	48.22	-21.50	Peak	---	---
2	186.17	24.43	43.50	-19.07	43.13	-18.70	Peak	---	---
3	498.51	29.30	46.00	-16.70	40.45	-11.15	Peak	---	---
4	564.47	27.17	46.00	-18.83	37.37	-10.20	Peak	---	---
5	797.27	37.56	46.00	-8.44	44.10	-6.54	Peak	---	---
6	869.05	38.23	46.00	-7.77	43.85	-5.62	Peak	---	---

Note 1: Emission Level (dBUV/m) = SA Reading (dBUV/m) + Factor* (dB)

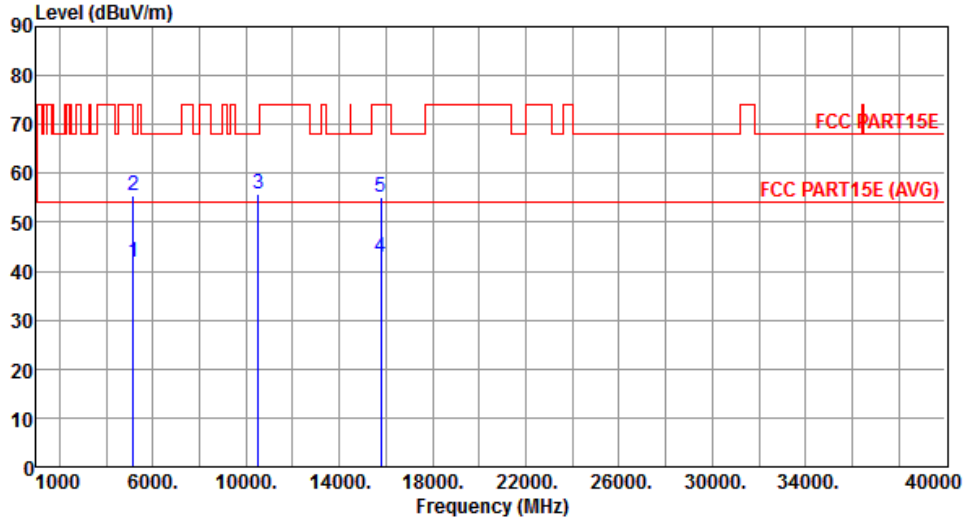
*Factor includes antenna factor , cable loss and amplifier gain

Note 2: Margin (dB) = Emission level (dBUV/m) – Limit (dBUV/m).

Note 3: All spurious emissions below 30MHz are more than 20 dB below the limit.

3.5.10 Transmitter Radiated Unwanted Emissions (Above 1GHz) for 11a

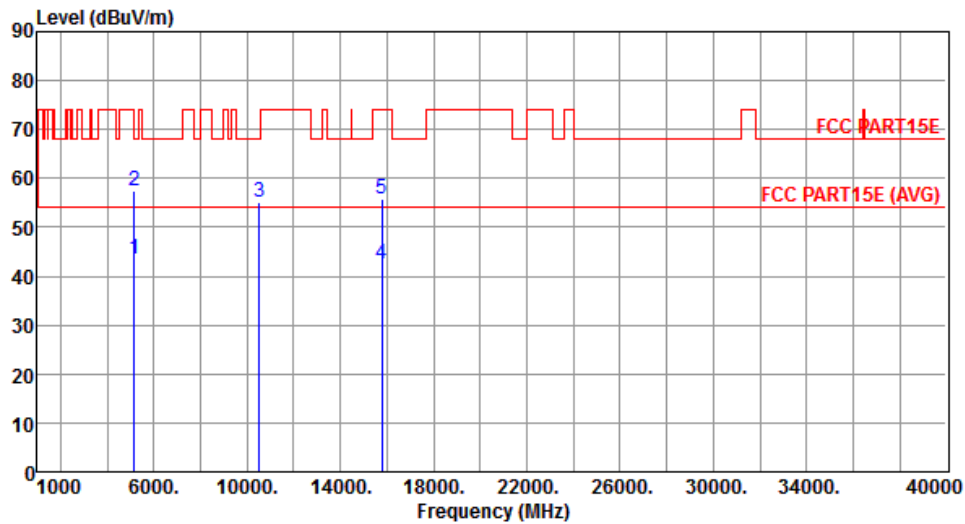
Modulation	11a	Test Freq. (MHz)	5260
Polarization	Horizontal	Test Configuration	2



	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	5150.00	41.97	54.00	-12.03	37.57	4.40	Average	290	200
2	5150.00	55.62	74.00	-18.38	51.22	4.40	Peak	290	200
3	10520.00	55.70	68.20	-12.50	41.20	14.50	Peak	150	270
4	15780.00	42.75	54.00	-11.25	27.96	14.79	Average	105	15
5	15780.00	55.01	74.00	-18.99	40.22	14.79	Peak	105	15

Note 1: Emission Level (dBuV/m) = SA Reading (dBuV/m) + Factor* (dB)
*Factor includes antenna factor , cable loss and amplifier gain
Note 2: Margin (dB) = Emission level (dBuV/m) – Limit (dBuV/m).

Modulation	11a	Test Freq. (MHz)	5260
Polarization	Vertical	Test Configuration	2



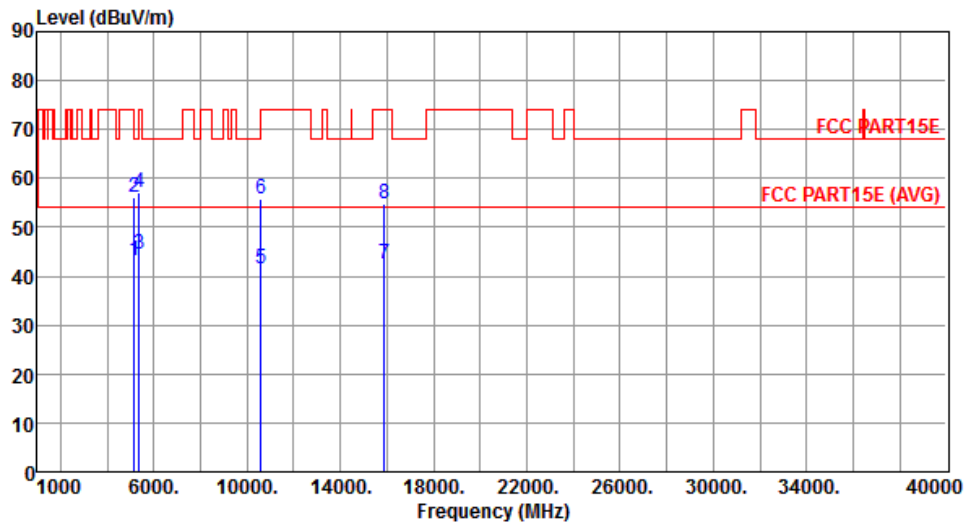
	Freq. MHz	Emission level dBUV/m	Limit dBUV/m	Margin dB	SA reading dBUV	Factor dB	Remark	ANT High cm	Turn Table deg
1	5150.00	43.52	54.00	-10.48	39.12	4.40	Average	278	140
2	5150.00	57.34	74.00	-16.66	52.94	4.40	Peak	278	140
3	10520.00	55.06	68.20	-13.14	40.56	14.50	Peak	180	250
4	15780.00	42.45	54.00	-11.55	27.66	14.79	Average	110	88
5	15780.00	55.89	74.00	-18.11	41.10	14.79	Peak	110	88

Note 1: Emission Level (dBUV/m) = SA Reading (dBUV/m) + Factor* (dB)

*Factor includes antenna factor , cable loss and amplifier gain

Note 2: Margin (dB) = Emission level (dBUV/m) – Limit (dBUV/m).

Modulation	11a	Test Freq. (MHz)	5300
Polarization	Horizontal	Test Configuration	2



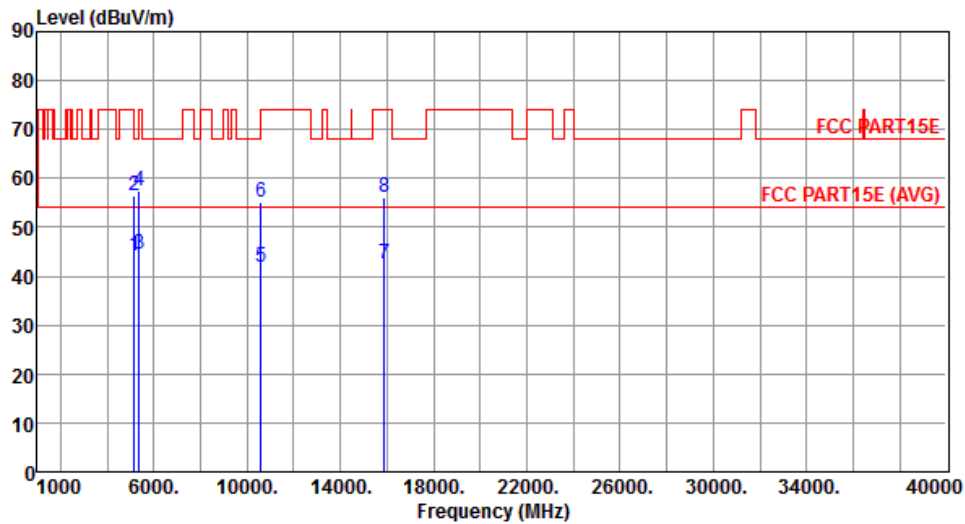
	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	5150.00	43.25	54.00	-10.75	38.85	4.40	Average	286	197
2	5150.00	56.26	74.00	-17.74	51.86	4.40	Peak	286	197
3	5350.00	44.45	54.00	-9.55	39.81	4.64	Average	286	197
4	5350.00	57.21	74.00	-16.79	52.57	4.64	Peak	286	197
5	10600.00	41.58	54.00	-12.42	26.99	14.59	Average	158	252
6	10600.00	55.82	74.00	-18.18	41.23	14.59	Peak	158	252
7	15900.00	42.55	54.00	-11.45	27.91	14.64	Average	135	45
8	15900.00	54.83	74.00	-19.17	40.19	14.64	Peak	135	45

Note 1: Emission Level (dBuV/m) = SA Reading (dBuV/m) + Factor* (dB)

*Factor includes antenna factor , cable loss and amplifier gain

Note 2: Margin (dB) = Emission level (dBuV/m) – Limit (dBuV/m).

Modulation	11a	Test Freq. (MHz)	5300
Polarization	Vertical	Test Configuration	2



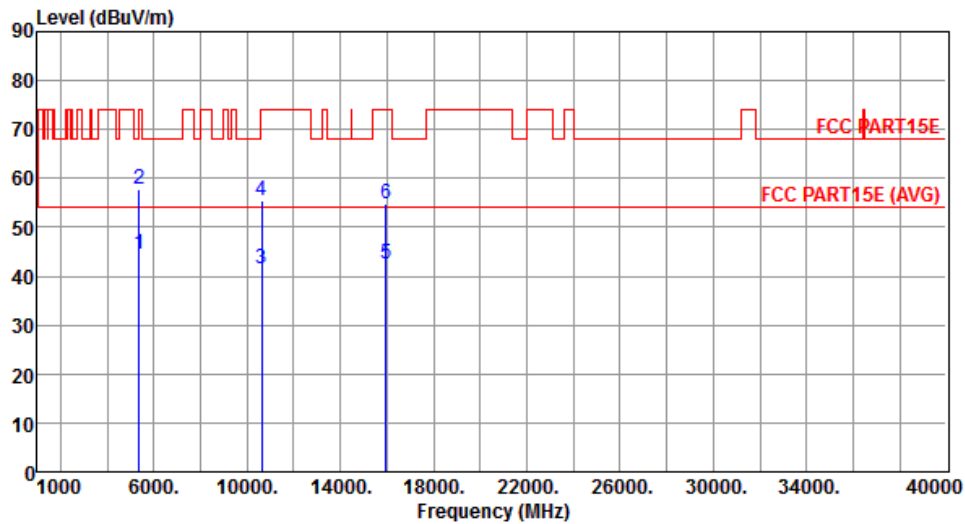
	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	5150.00	44.15	54.00	-9.85	39.75	4.40	Average	280	141
2	5150.00	56.38	74.00	-17.62	51.98	4.40	Peak	280	141
3	5350.00	44.67	54.00	-9.33	40.03	4.64	Average	280	141
4	5350.00	57.42	74.00	-16.58	52.78	4.64	Peak	280	141
5	10600.00	41.71	54.00	-12.29	27.12	14.59	Average	160	245
6	10600.00	55.08	74.00	-18.92	40.49	14.59	Peak	160	245
7	15900.00	42.51	54.00	-11.49	27.87	14.64	Average	105	92
8	15900.00	55.97	74.00	-18.03	41.33	14.64	Peak	105	92

Note 1: Emission Level (dBuV/m) = SA Reading (dBuV/m) + Factor* (dB)

*Factor includes antenna factor , cable loss and amplifier gain

Note 2: Margin (dB) = Emission level (dBuV/m) – Limit (dBuV/m).

Modulation	11a	Test Freq. (MHz)	5320
Polarization	Horizontal	Test Configuration	2



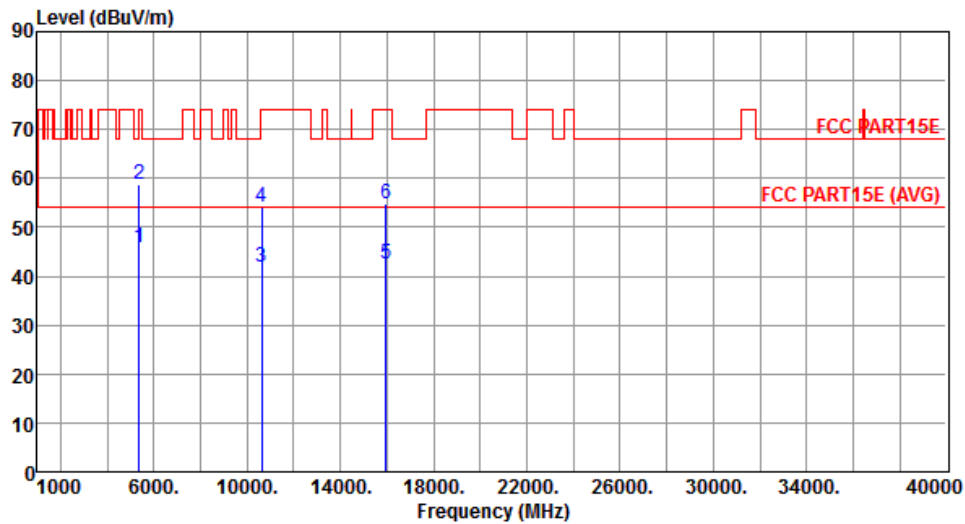
	Freq. MHz	Emission level dBUV/m	Limit dBUV/m	Margin dB	SA reading dBUV	Factor dB	Remark	ANT High cm	Turn Table deg
1	5350.00	44.65	54.00	-9.35	40.01	4.64	Average	281	202
2	5350.00	57.62	74.00	-16.38	52.98	4.64	Peak	281	202
3	10640.00	41.43	54.00	-12.57	26.79	14.64	Average	149	250
4	10640.00	55.37	74.00	-18.63	40.73	14.64	Peak	149	250
5	15960.00	42.47	54.00	-11.53	27.92	14.55	Average	131	51
6	15960.00	54.87	74.00	-19.13	40.32	14.55	Peak	131	51

Note 1: Emission Level (dBUV/m) = SA Reading (dBUV/m) + Factor* (dB)

*Factor includes antenna factor , cable loss and amplifier gain

Note 2: Margin (dB) = Emission level (dBUV/m) – Limit (dBUV/m).

Modulation	11a	Test Freq. (MHz)	5320
Polarization	Vertical	Test Configuration	2



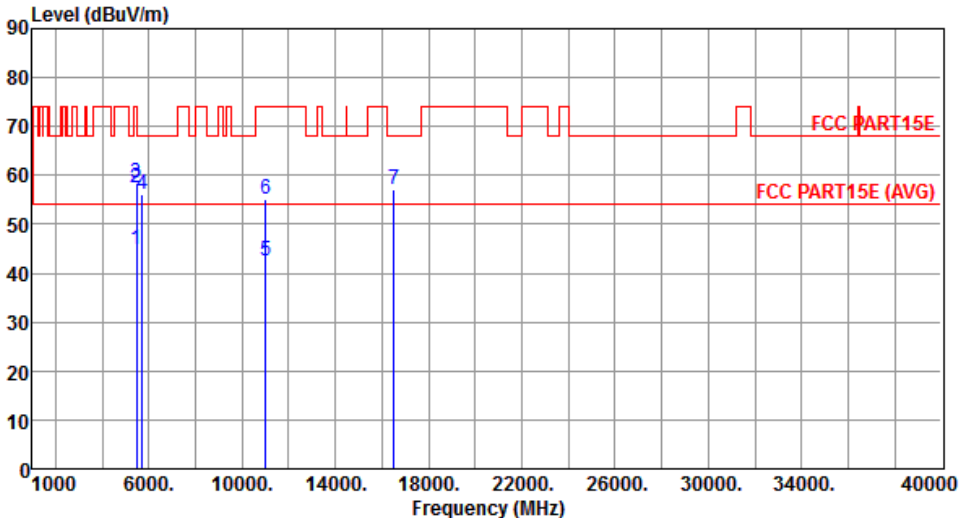
	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	5350.00	45.79	54.00	-8.21	41.15	4.64	Average	324	206
2	5350.00	58.94	74.00	-15.06	54.30	4.64	Peak	324	206
3	10640.00	41.79	54.00	-12.21	27.15	14.64	Average	124	44
4	10640.00	54.16	74.00	-19.84	39.52	14.64	Peak	124	44
5	15960.00	42.40	54.00	-11.60	27.85	14.55	Average	130	44
6	15960.00	54.74	74.00	-19.26	40.19	14.55	Peak	130	44

Note 1: Emission Level (dBuV/m) = SA Reading (dBuV/m) + Factor* (dB)

*Factor includes antenna factor , cable loss and amplifier gain

Note 2: Margin (dB) = Emission level (dBuV/m) – Limit (dBuV/m).

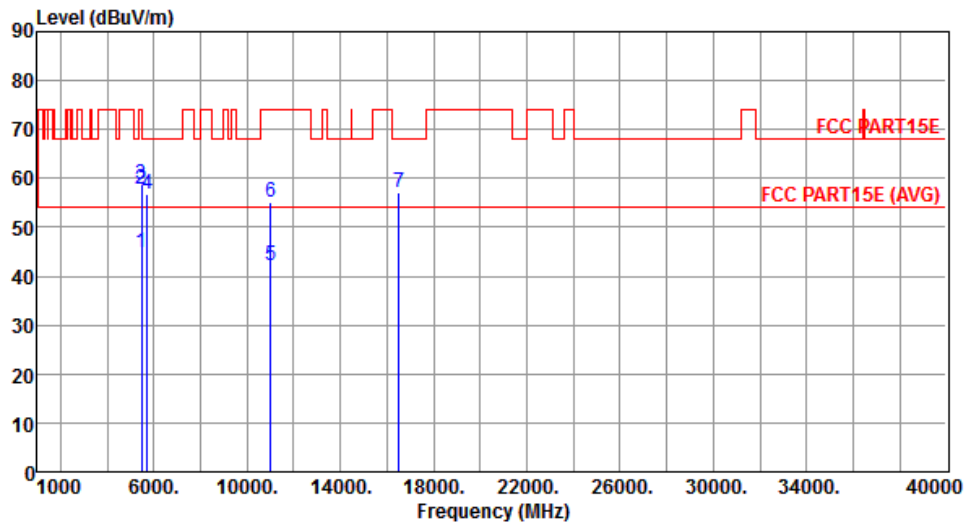
Modulation	11a	Test Freq. (MHz)	5500
Polarization	Horizontal	Test Configuration	2



	Freq. MHz	Emission level dBUV/m	Limit dBUV/m	Margin dB	SA reading dBUV	Factor dB	Remark	ANT High cm	Turn Table deg
1	5460.00	44.76	54.00	-9.24	39.98	4.78	Average	295	188
2	5460.00	57.49	74.00	-16.51	52.71	4.78	Peak	295	188
3	5470.00	58.57	68.20	-9.63	53.78	4.79	Peak	295	188
4	5725.00	56.05	68.20	-12.15	50.96	5.09	Peak	115	56
5	11000.00	42.37	54.00	-11.63	27.31	15.06	Average	152	236
6	11000.00	55.25	74.00	-18.75	40.19	15.06	Peak	152	236
7	16500.00	57.10	68.20	-11.10	40.72	16.38	Peak	105	80

Note 1: Emission Level (dBUV/m) = SA Reading (dBUV/m) + Factor* (dB)
*Factor includes antenna factor , cable loss and amplifier gain
Note 2: Margin (dB) = Emission level (dBUV/m) – Limit (dBUV/m).

Modulation	11a	Test Freq. (MHz)	5500
Polarization	Vertical	Test Configuration	2



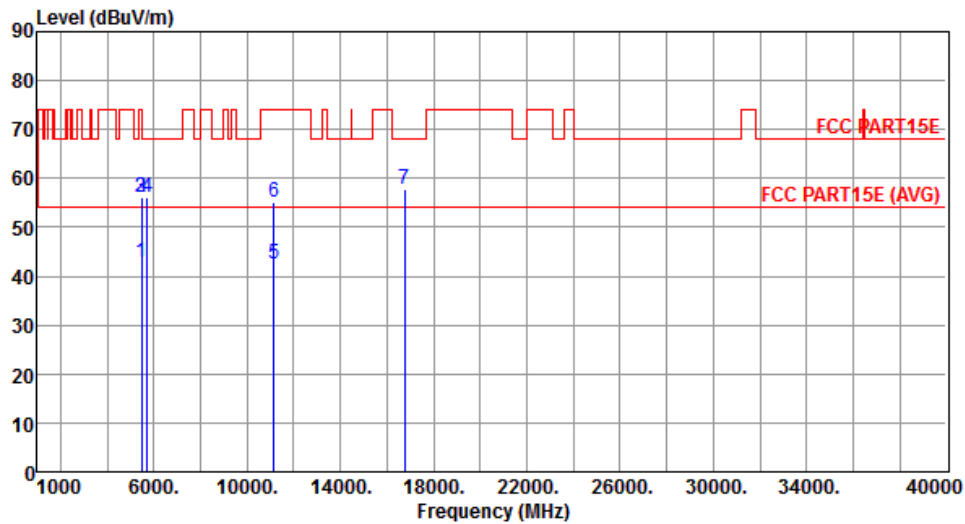
	Freq. MHz	Emission level dBUV/m	Limit dBUV/m	Margin dB	SA reading dBUV	Factor dB	Remark	ANT High cm	Turn Table deg
1	5460.00	44.87	54.00	-9.13	40.09	4.78	Average	319	131
2	5460.00	57.65	74.00	-16.35	52.87	4.78	Peak	319	131
3	5470.00	58.69	68.20	-9.51	53.90	4.79	Peak	319	131
4	5725.00	56.90	68.20	-11.30	51.81	5.09	Peak	112	176
5	11000.00	42.08	54.00	-11.92	27.02	15.06	Average	145	230
6	11000.00	55.29	74.00	-18.71	40.23	15.06	Peak	145	230
7	16500.00	57.02	68.20	-11.18	40.64	16.38	Peak	131	110

Note 1: Emission Level (dBUV/m) = SA Reading (dBUV/m) + Factor* (dB)

*Factor includes antenna factor , cable loss and amplifier gain

Note 2: Margin (dB) = Emission level (dBUV/m) – Limit (dBUV/m).

Modulation	11a	Test Freq. (MHz)	5580
Polarization	Horizontal	Test Configuration	2



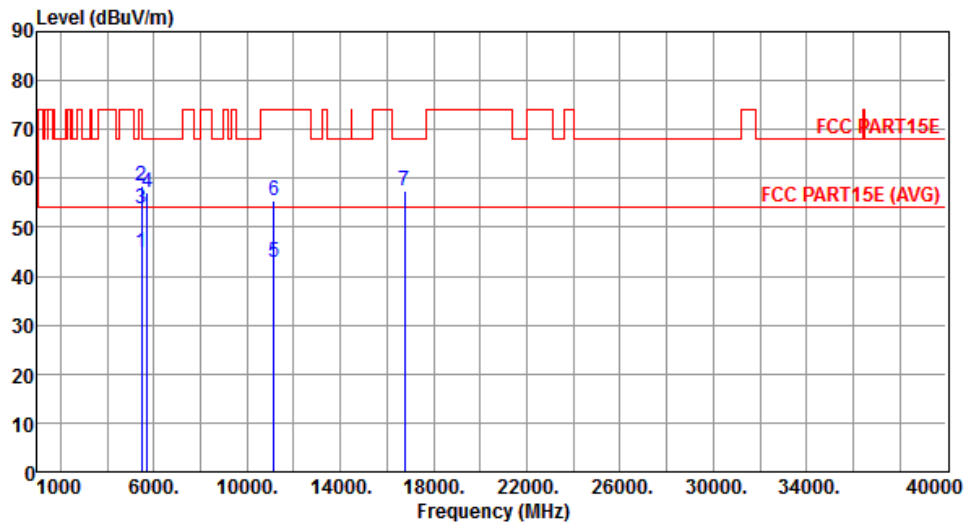
	Freq. MHz	Emission level dBUV/m	Limit dBUV/m	Margin dB	SA reading dBUV	Factor dB	Remark	ANT High cm	Turn Table deg
1	5460.00	42.87	54.00	-11.13	38.09	4.78	Average	100	208
2	5460.00	56.23	74.00	-17.77	51.45	4.78	Peak	100	208
3	5470.00	56.08	68.20	-12.12	51.29	4.79	Peak	100	208
4	5725.00	55.97	68.20	-12.23	50.88	5.09	Peak	100	208
5	11160.00	42.56	54.00	-11.44	27.35	15.21	Average	132	112
6	11160.00	55.23	74.00	-18.77	40.02	15.21	Peak	132	112
7	16740.00	57.63	68.20	-10.57	40.37	17.26	Peak	142	203

Note 1: Emission Level (dBUV/m) = SA Reading (dBUV/m) + Factor* (dB)

*Factor includes antenna factor , cable loss and amplifier gain

Note 2: Margin (dB) = Emission level (dBUV/m) – Limit (dBUV/m).

Modulation	11a	Test Freq. (MHz)	5580
Polarization	Vertical	Test Configuration	2



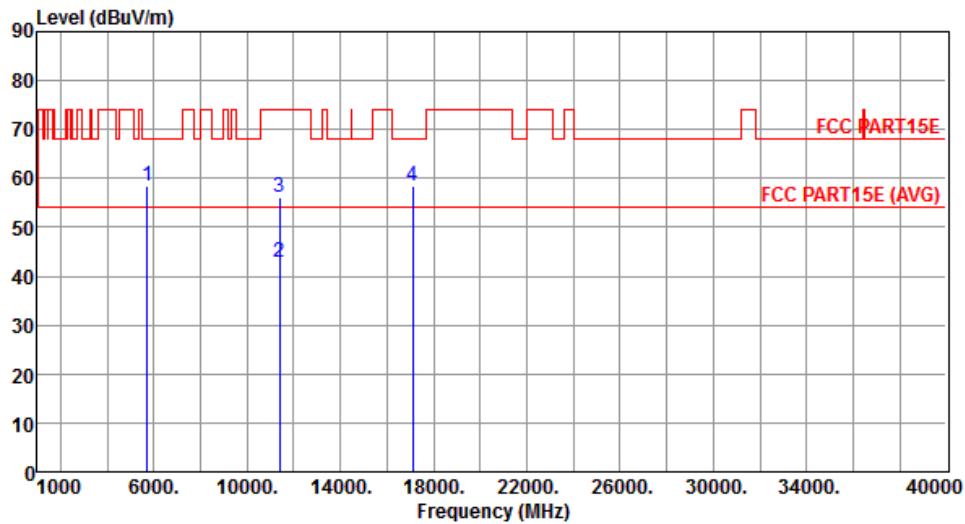
	Freq. MHz	Emission level dBUV/m	Limit dBUV/m	Margin dB	SA reading dBUV	Factor dB	Remark	ANT High cm	Turn Table deg
1	5460.00	44.95	54.00	-9.05	40.17	4.78	Average	301	144
2	5460.00	58.36	74.00	-15.64	53.58	4.78	Peak	301	144
3	5470.00	53.75	68.20	-14.45	48.96	4.79	Peak	301	144
4	5725.00	57.16	68.20	-11.04	52.07	5.09	Peak	301	144
5	11160.00	42.75	54.00	-11.25	27.54	15.21	Average	133	226
6	11160.00	55.34	74.00	-18.66	40.13	15.21	Peak	133	226
7	16740.00	57.34	68.20	-10.86	40.08	17.26	Peak	191	145

Note 1: Emission Level (dBUV/m) = SA Reading (dBUV/m) + Factor* (dB)

*Factor includes antenna factor , cable loss and amplifier gain

Note 2: Margin (dB) = Emission level (dBUV/m) – Limit (dBUV/m).

Modulation	11a	Test Freq. (MHz)	5700
Polarization	Horizontal	Test Configuration	2



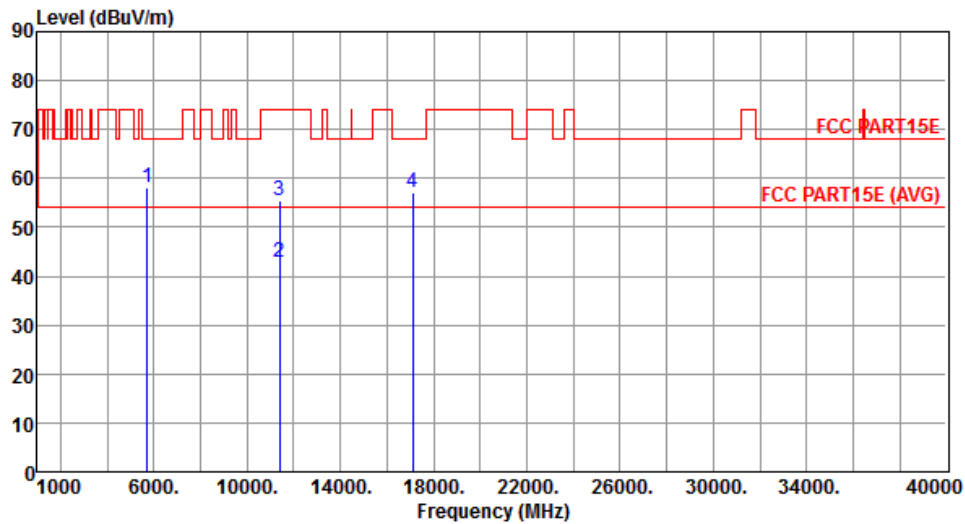
	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	5725.00	58.33	68.20	-9.87	53.24	5.09	Peak	379	253
2	11400.00	42.78	54.00	-11.22	27.34	15.44	Average	128	39
3	11400.00	56.07	74.00	-17.93	40.63	15.44	Peak	128	39
4	17100.00	58.52	68.20	-9.68	40.02	18.50	Peak	121	57

Note 1: Emission Level (dBuV/m) = SA Reading (dBuV/m) + Factor* (dB)

*Factor includes antenna factor , cable loss and amplifier gain

Note 2: Margin (dB) = Emission level (dBuV/m) – Limit (dBuV/m).

Modulation	11a	Test Freq. (MHz)	5700
Polarization	Vertical	Test Configuration	2



	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	5725.00	58.24	68.20	-9.96	53.15	5.09	Peak	337	267
2	11400.00	42.74	54.00	-11.26	27.30	15.44	Average	186	152
3	11400.00	55.37	74.00	-18.63	39.93	15.44	Peak	186	152
4	17100.00	57.01	68.20	-11.19	38.51	18.50	Peak	175	169

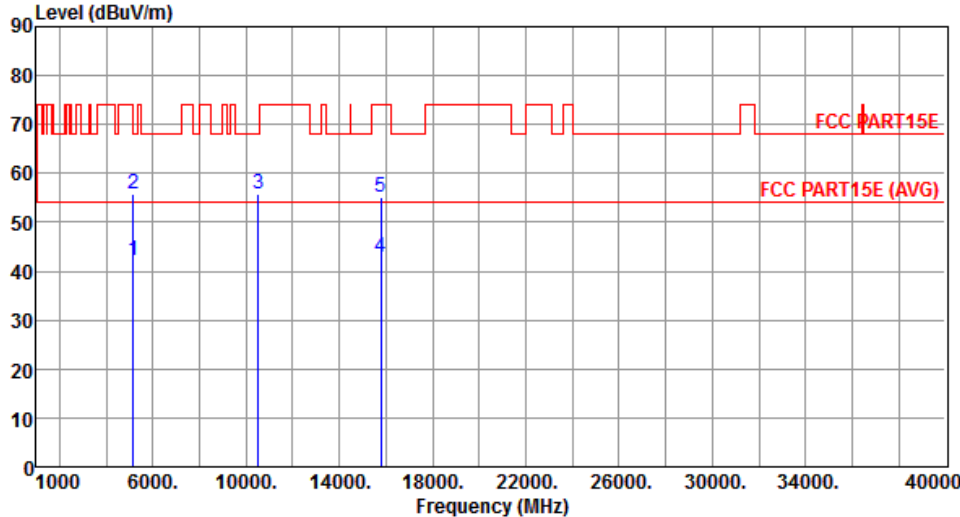
Note 1: Emission Level (dBuV/m) = SA Reading (dBuV/m) + Factor* (dB)

*Factor includes antenna factor , cable loss and amplifier gain

Note 2: Margin (dB) = Emission level (dBuV/m) – Limit (dBuV/m).

3.5.11 Transmitter Radiated Unwanted Emissions (Above 1GHz) for VHT20

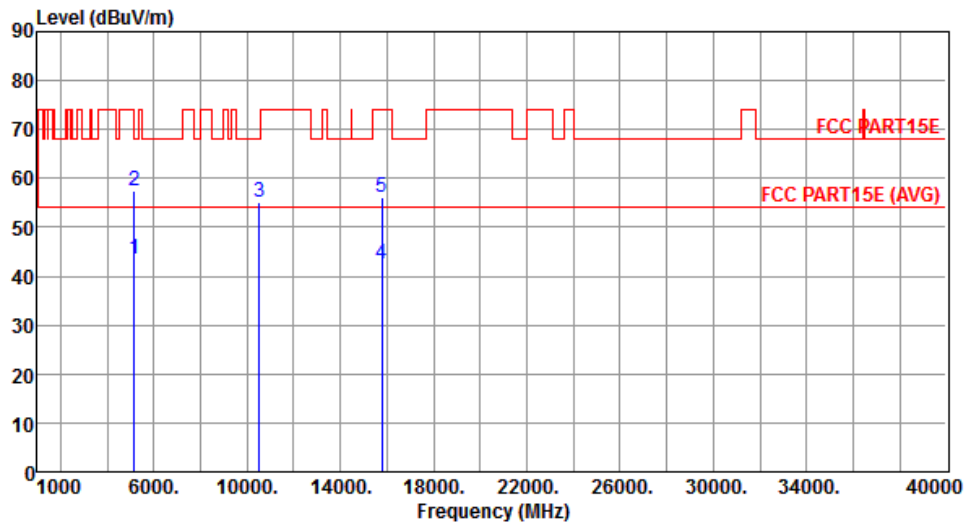
Modulation	VHT20	Test Freq. (MHz)	5260
Polarization	Horizontal	Test Configuration	2



	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	5150.00	42.02	54.00	-11.98	37.62	4.40	Average	293	194
2	5150.00	55.79	74.00	-18.21	51.39	4.40	Peak	293	194
3	10520.00	55.93	68.20	-12.27	41.43	14.50	Peak	144	272
4	15780.00	42.81	54.00	-11.19	28.02	14.79	Average	110	23
5	15780.00	55.15	74.00	-18.85	40.36	14.79	Peak	110	23

Note 1: Emission Level (dBuV/m) = SA Reading (dBuV/m) + Factor* (dB)
 *Factor includes antenna factor , cable loss and amplifier gain
 Note 2: Margin (dB) = Emission level (dBuV/m) – Limit (dBuV/m).

Modulation	VHT20	Test Freq. (MHz)	5260
Polarization	Vertical	Test Configuration	2



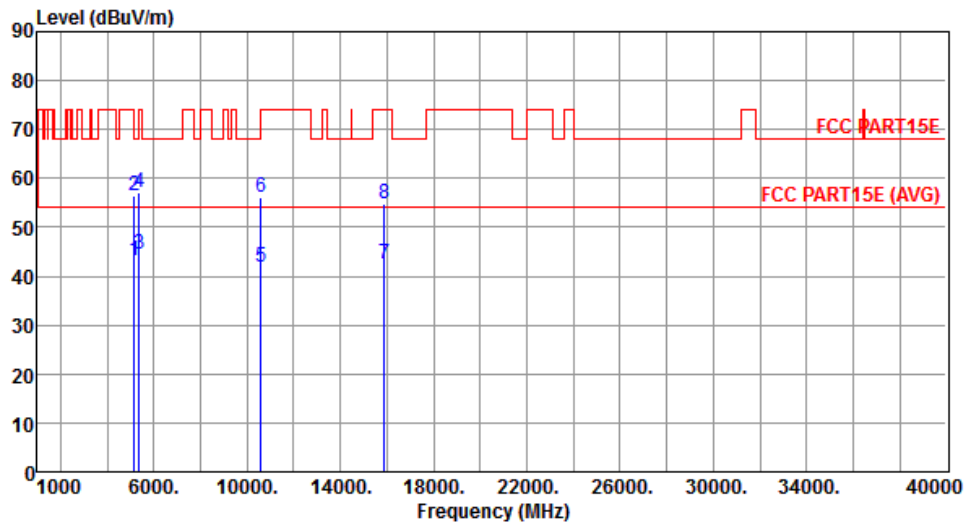
	Freq. MHz	Emission level dBUV/m	Limit dBUV/m	Margin dB	SA reading dBUV	Factor dB	Remark	ANT High cm	Turn Table deg
1	5150.00	43.59	54.00	-10.41	39.19	4.40	Average	281	136
2	5150.00	57.36	74.00	-16.64	52.96	4.40	Peak	281	136
3	10520.00	55.11	68.20	-13.09	40.61	14.50	Peak	172	247
4	15780.00	42.49	54.00	-11.51	27.70	14.79	Average	114	92
5	15780.00	55.97	74.00	-18.03	41.18	14.79	Peak	114	92

Note 1: Emission Level (dBUV/m) = SA Reading (dBUV/m) + Factor* (dB)

*Factor includes antenna factor , cable loss and amplifier gain

Note 2: Margin (dB) = Emission level (dBUV/m) – Limit (dBUV/m).

Modulation	VHT20	Test Freq. (MHz)	5300
Polarization	Horizontal	Test Configuration	2



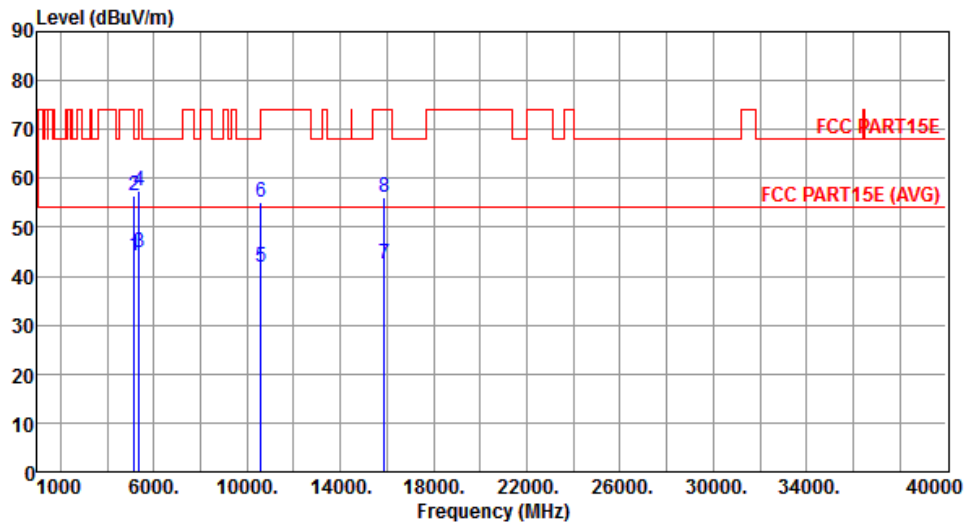
	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	5150.00	43.31	54.00	-10.69	38.91	4.40	Average	292	194
2	5150.00	56.30	74.00	-17.70	51.90	4.40	Peak	292	194
3	5350.00	44.55	54.00	-9.45	39.91	4.64	Average	292	194
4	5350.00	57.26	74.00	-16.74	52.62	4.64	Peak	292	194
5	10600.00	41.73	54.00	-12.27	27.14	14.59	Average	157	261
6	10600.00	55.97	74.00	-18.03	41.38	14.59	Peak	157	261
7	15900.00	42.63	54.00	-11.37	27.99	14.64	Average	136	41
8	15900.00	54.89	74.00	-19.11	40.25	14.64	Peak	136	41

Note 1: Emission Level (dBuV/m) = SA Reading (dBuV/m) + Factor* (dB)

*Factor includes antenna factor , cable loss and amplifier gain

Note 2: Margin (dB) = Emission level (dBuV/m) – Limit (dBuV/m).

Modulation	VHT20	Test Freq. (MHz)	5300
Polarization	Vertical	Test Configuration	2



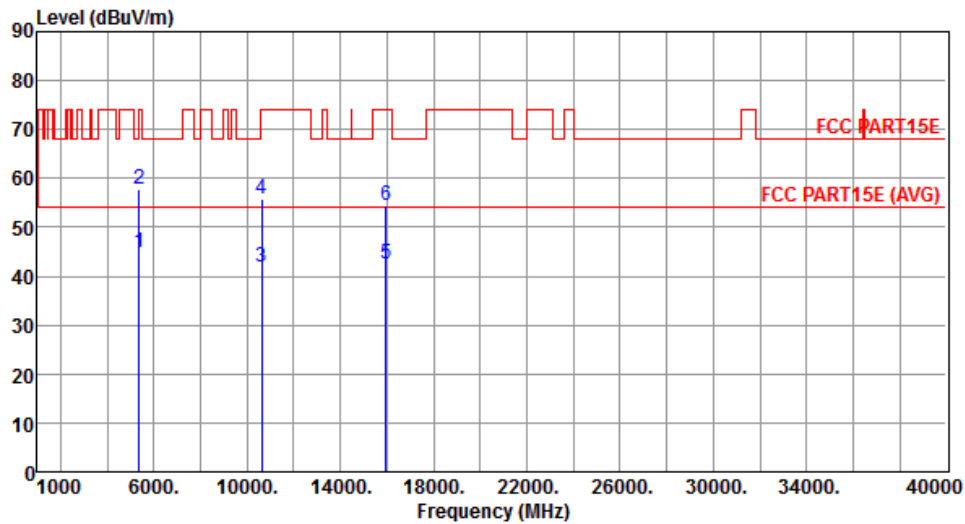
	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	5150.00	44.21	54.00	-9.79	39.81	4.40	Average	274	146
2	5150.00	56.40	74.00	-17.60	52.00	4.40	Peak	274	146
3	5350.00	44.74	54.00	-9.26	40.10	4.64	Average	274	146
4	5350.00	57.49	74.00	-16.51	52.85	4.64	Peak	274	146
5	10600.00	41.78	54.00	-12.22	27.19	14.59	Average	152	244
6	10600.00	55.11	74.00	-18.89	40.52	14.59	Peak	152	244
7	15900.00	42.53	54.00	-11.47	27.89	14.64	Average	103	99
8	15900.00	55.99	74.00	-18.01	41.35	14.64	Peak	103	99

Note 1: Emission Level (dBuV/m) = SA Reading (dBuV/m) + Factor* (dB)

*Factor includes antenna factor , cable loss and amplifier gain

Note 2: Margin (dB) = Emission level (dBuV/m) – Limit (dBuV/m).

Modulation	VHT20	Test Freq. (MHz)	5320
Polarization	Horizontal	Test Configuration	2



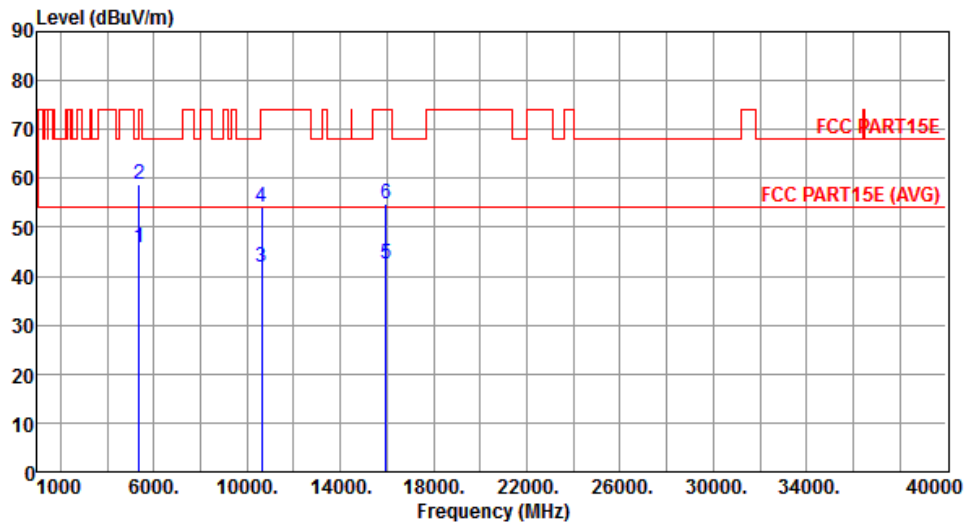
	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	5350.00	44.82	54.00	-9.18	40.18	4.64	Average	276	210
2	5350.00	57.92	74.00	-16.08	53.28	4.64	Peak	276	210
3	10640.00	41.77	54.00	-12.23	27.13	14.64	Average	144	248
4	10640.00	55.74	74.00	-18.26	41.10	14.64	Peak	144	248
5	15960.00	42.59	54.00	-11.41	28.04	14.55	Average	124	55
6	15960.00	54.35	74.00	-19.65	39.80	14.55	Peak	124	55

Note 1: Emission Level (dBuV/m) = SA Reading (dBuV/m) + Factor* (dB)

*Factor includes antenna factor , cable loss and amplifier gain

Note 2: Margin (dB) = Emission level (dBuV/m) – Limit (dBuV/m).

Modulation	VHT20	Test Freq. (MHz)	5320
Polarization	Vertical	Test Configuration	2



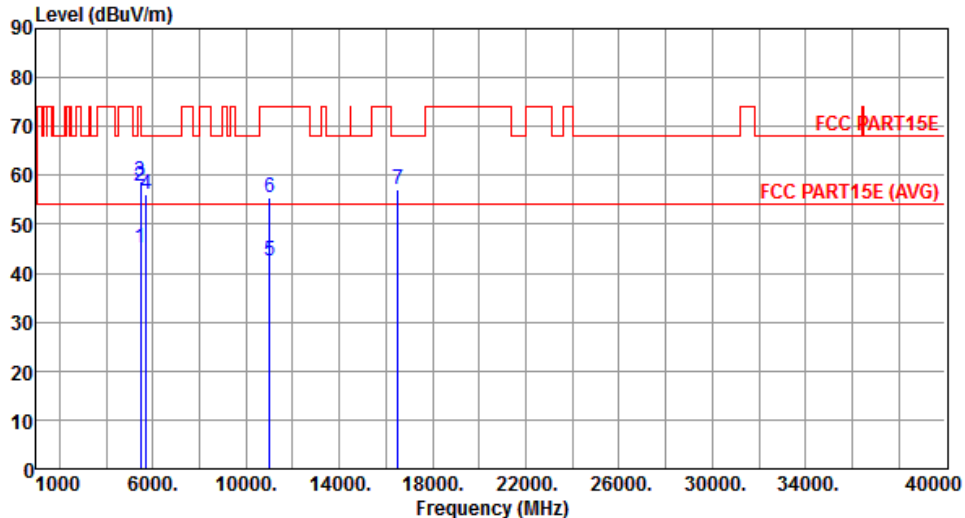
	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	5350.00	45.79	54.00	-8.21	41.15	4.64	Average	330	203
2	5350.00	58.94	74.00	-15.06	54.30	4.64	Peak	330	203
3	10640.00	41.79	54.00	-12.21	27.15	14.64	Average	127	46
4	10640.00	54.16	74.00	-19.84	39.52	14.64	Peak	127	46
5	15960.00	42.44	54.00	-11.56	27.89	14.55	Average	145	41
6	15960.00	54.83	74.00	-19.17	40.28	14.55	Peak	145	41

Note 1: Emission Level (dBuV/m) = SA Reading (dBuV/m) + Factor* (dB)

*Factor includes antenna factor , cable loss and amplifier gain

Note 2: Margin (dB) = Emission level (dBuV/m) – Limit (dBuV/m).

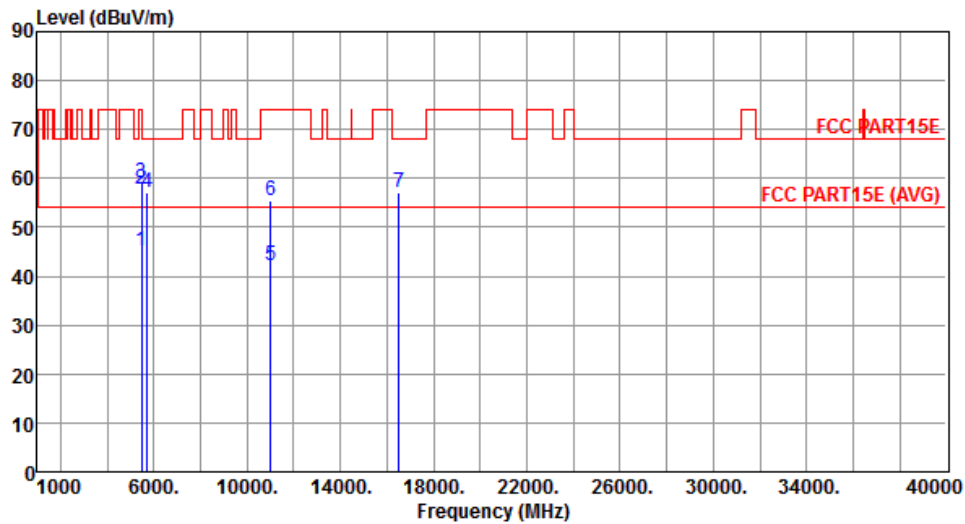
Modulation	VHT20	Test Freq. (MHz)	5500
Polarization	Horizontal	Test Configuration	2



	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	5460.00	45.16	54.00	-8.84	40.38	4.78	Average	301	184
2	5460.00	57.94	74.00	-16.06	53.16	4.78	Peak	301	184
3	5470.00	58.71	68.20	-9.49	53.92	4.79	Peak	301	184
4	5725.00	56.19	68.20	-12.01	51.10	5.09	Peak	119	48
5	11000.00	42.41	54.00	-11.59	27.35	15.06	Average	155	231
6	11000.00	55.35	74.00	-18.65	40.29	15.06	Peak	155	231
7	16500.00	57.19	68.20	-11.01	40.81	16.38	Peak	109	83

Note 1: Emission Level (dBuV/m) = SA Reading (dBuV/m) + Factor* (dB)
*Factor includes antenna factor , cable loss and amplifier gain
Note 2: Margin (dB) = Emission level (dBuV/m) – Limit (dBuV/m).

Modulation	VHT20	Test Freq. (MHz)	5500
Polarization	Vertical	Test Configuration	2



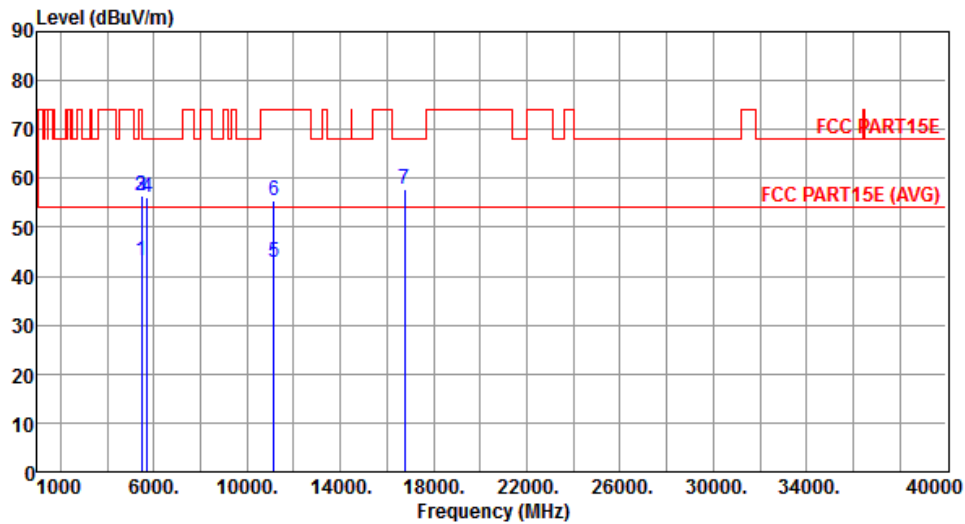
	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	5460.00	45.03	54.00	-8.97	40.25	4.78	Average	325	126
2	5460.00	57.91	74.00	-16.09	53.13	4.78	Peak	325	126
3	5470.00	58.99	68.20	-9.21	54.20	4.79	Peak	325	126
4	5725.00	57.09	68.20	-11.11	52.00	5.09	Peak	106	174
5	11000.00	42.13	54.00	-11.87	27.07	15.06	Average	149	232
6	11000.00	55.32	74.00	-18.68	40.26	15.06	Peak	149	232
7	16500.00	57.28	68.20	-10.92	40.90	16.38	Peak	124	111

Note 1: Emission Level (dBuV/m) = SA Reading (dBuV/m) + Factor* (dB)

*Factor includes antenna factor , cable loss and amplifier gain

Note 2: Margin (dB) = Emission level (dBuV/m) – Limit (dBuV/m).

Modulation	VHT20	Test Freq. (MHz)	5580
Polarization	Horizontal	Test Configuration	2



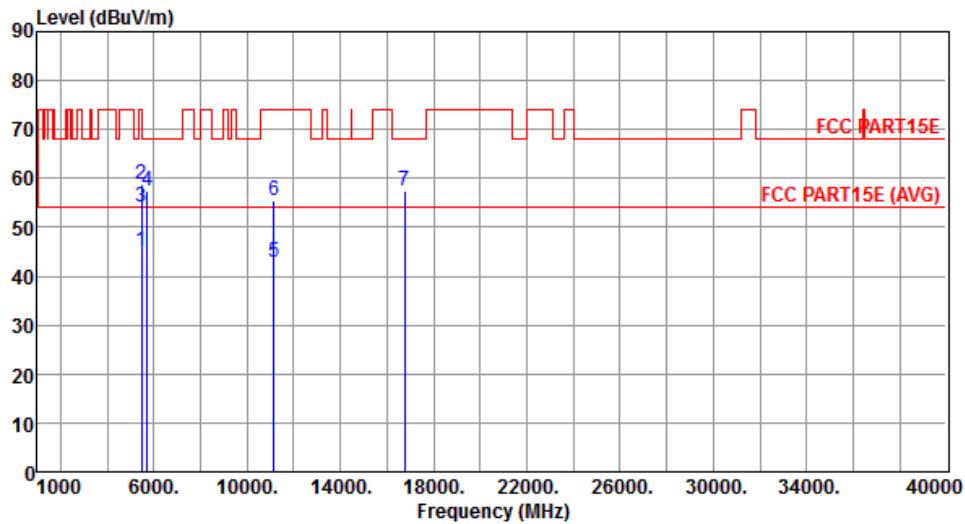
	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	5460.00	43.11	54.00	-10.89	38.33	4.78	Average	105	199
2	5460.00	56.35	74.00	-17.65	51.57	4.78	Peak	105	199
3	5470.00	56.39	68.20	-11.81	51.60	4.79	Peak	105	199
4	5725.00	56.19	68.20	-12.01	51.10	5.09	Peak	105	299
5	11160.00	42.81	54.00	-11.19	27.60	15.21	Average	141	120
6	11160.00	55.36	74.00	-18.64	40.15	15.21	Peak	141	120
7	16740.00	57.92	68.20	-10.28	40.66	17.26	Peak	135	200

Note 1: Emission Level (dBuV/m) = SA Reading (dBuV/m) + Factor* (dB)

*Factor includes antenna factor , cable loss and amplifier gain

Note 2: Margin (dB) = Emission level (dBuV/m) – Limit (dBuV/m).

Modulation	VHT20	Test Freq. (MHz)	5580
Polarization	Vertical	Test Configuration	2



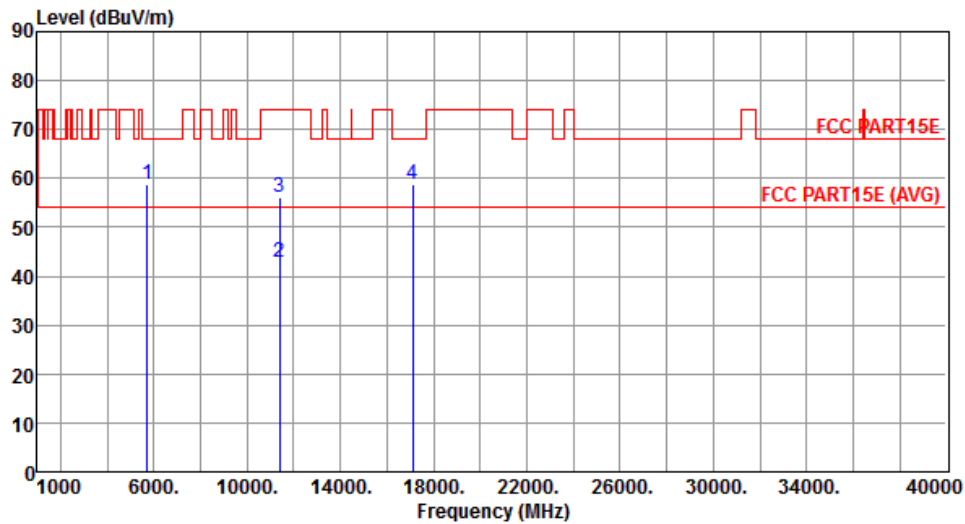
	Freq. MHz	Emission level dBUV/m	Limit dBUV/m	Margin dB	SA reading dBUV	Factor dB	Remark	ANT High cm	Turn Table deg
1	5460.00	45.23	54.00	-8.77	40.45	4.78	Average	296	145
2	5460.00	58.87	74.00	-15.13	54.09	4.78	Peak	296	145
3	5470.00	54.01	68.20	-14.19	49.22	4.79	Peak	296	145
4	5725.00	57.56	68.20	-10.64	52.47	5.09	Peak	296	145
5	11160.00	42.81	54.00	-11.19	27.60	15.21	Average	125	241
6	11160.00	55.48	74.00	-18.52	40.27	15.21	Peak	125	241
7	16740.00	57.51	68.20	-10.69	40.25	17.26	Peak	198	150

Note 1: Emission Level (dBUV/m) = SA Reading (dBUV/m) + Factor* (dB)

*Factor includes antenna factor , cable loss and amplifier gain

Note 2: Margin (dB) = Emission level (dBUV/m) – Limit (dBUV/m).

Modulation	VHT20	Test Freq. (MHz)	5700
Polarization	Horizontal	Test Configuration	2



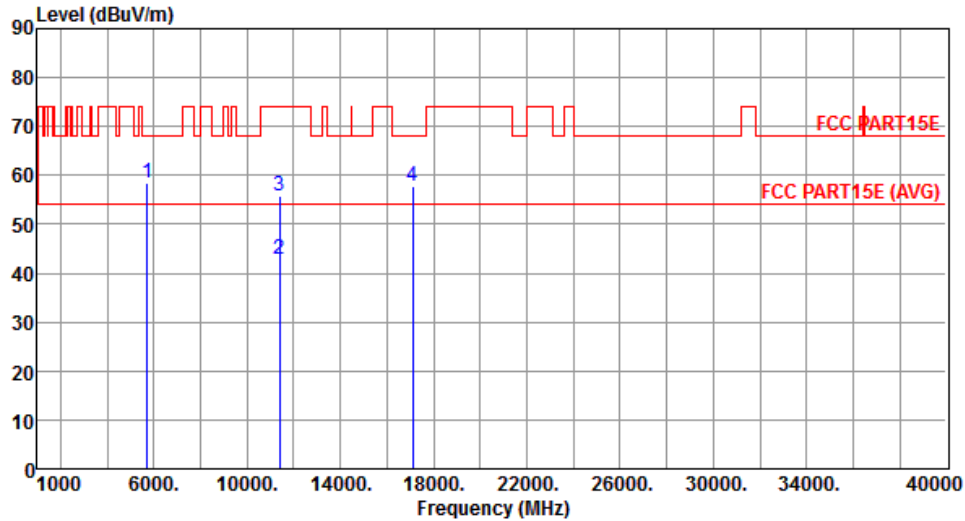
	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	5725.00	58.92	68.20	-9.28	53.83	5.09	Peak	375	260
2	11400.00	42.76	54.00	-11.24	27.32	15.44	Average	131	45
3	11400.00	56.14	74.00	-17.86	40.70	15.44	Peak	131	45
4	17100.00	58.63	68.20	-9.57	40.13	18.50	Peak	125	51

Note 1: Emission Level (dBuV/m) = SA Reading (dBuV/m) + Factor* (dB)

*Factor includes antenna factor , cable loss and amplifier gain

Note 2: Margin (dB) = Emission level (dBuV/m) – Limit (dBuV/m).

Modulation	VHT20	Test Freq. (MHz)	5700
Polarization	Vertical	Test Configuration	2



	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	5725.00	58.51	68.20	-9.69	53.42	5.09	Peak	330	270
2	11400.00	42.94	54.00	-11.06	27.50	15.44	Average	179	155
3	11400.00	55.89	74.00	-18.11	40.45	15.44	Peak	179	155
4	17100.00	57.83	68.20	-10.37	39.33	18.50	Peak	171	169

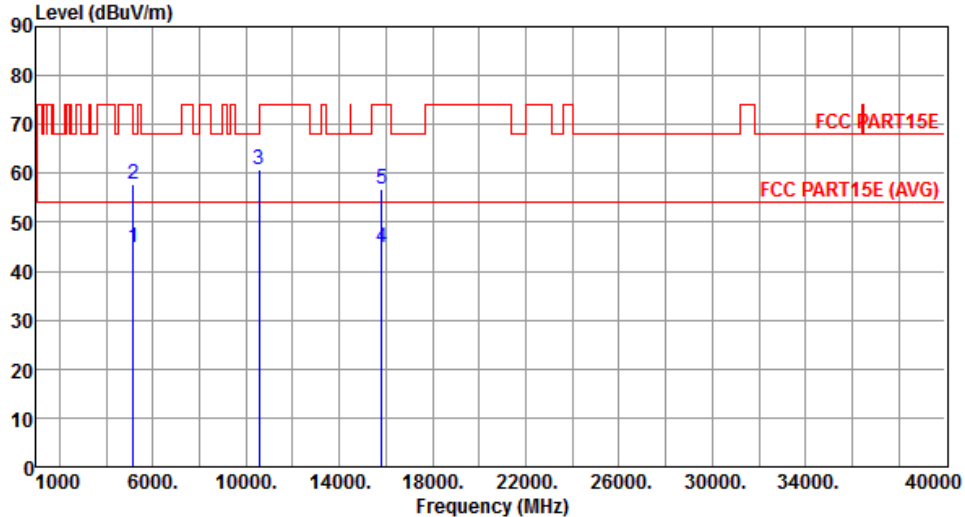
Note 1: Emission Level (dBuV/m) = SA Reading (dBuV/m) + Factor* (dB)

*Factor includes antenna factor , cable loss and amplifier gain

Note 2: Margin (dB) = Emission level (dBuV/m) – Limit (dBuV/m).

3.5.12 Transmitter Radiated Unwanted Emissions (Above 1GHz) for VHT40

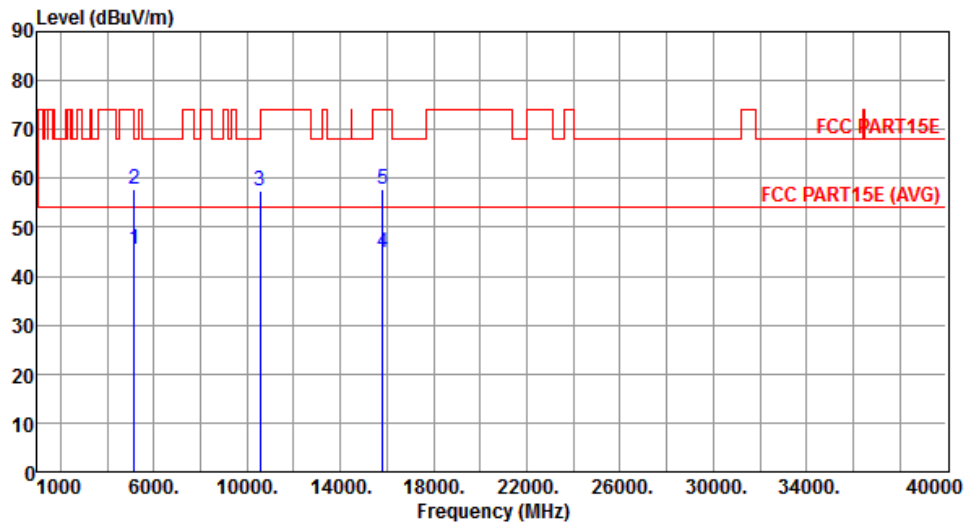
Modulation	VHT40	Test Freq. (MHz)	5270
Polarization	Horizontal	Test Configuration	2



	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	5150.00	44.89	54.00	-9.11	40.49	4.40	Average	100	28
2	5150.00	57.87	74.00	-16.13	53.47	4.40	Peak	100	28
3	10540.00	60.85	68.20	-7.35	46.33	14.52	Peak	100	246
4	15810.00	44.75	54.00	-9.25	30.00	14.75	Average	100	113
5	15810.00	56.80	74.00	-17.20	42.05	14.75	Peak	100	113

Note 1: Emission Level (dBuV/m) = SA Reading (dBuV/m) + Factor* (dB)
 *Factor includes antenna factor , cable loss and amplifier gain
 Note 2: Margin (dB) = Emission level (dBuV/m) – Limit (dBuV/m).

Modulation	VHT40	Test Freq. (MHz)	5270
Polarization	Vertical	Test Configuration	2



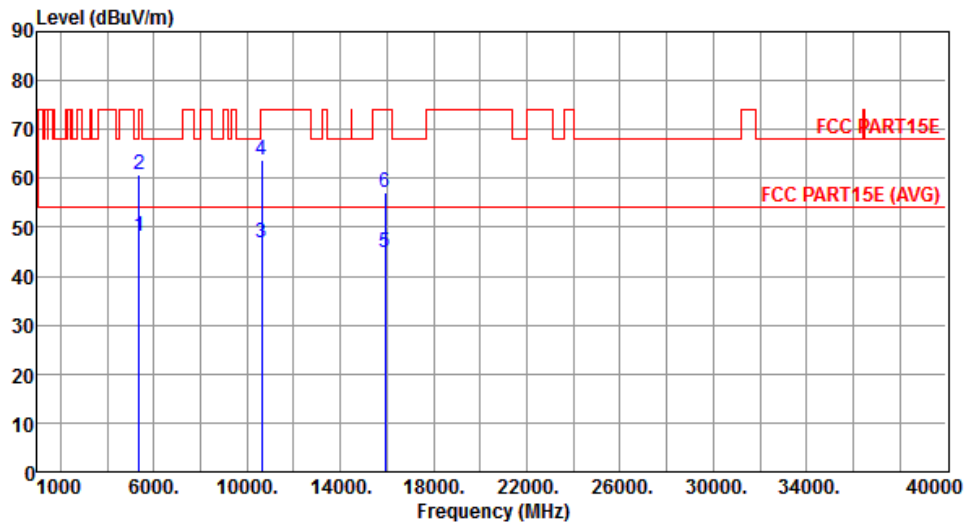
	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	5150.00	45.44	54.00	-8.56	41.04	4.40	Average	333	202
2	5150.00	57.78	74.00	-16.22	53.38	4.40	Peak	333	202
3	10540.00	57.45	68.20	-10.75	42.93	14.52	Peak	100	0
4	15810.00	44.81	54.00	-9.19	30.06	14.75	Average	100	336
5	15810.00	57.75	74.00	-16.25	43.00	14.75	Peak	100	336

Note 1: Emission Level (dBuV/m) = SA Reading (dBuV/m) + Factor* (dB)

*Factor includes antenna factor , cable loss and amplifier gain

Note 2: Margin (dB) = Emission level (dBuV/m) – Limit (dBuV/m).

Modulation	VHT40	Test Freq. (MHz)	5310
Polarization	Horizontal	Test Configuration	2



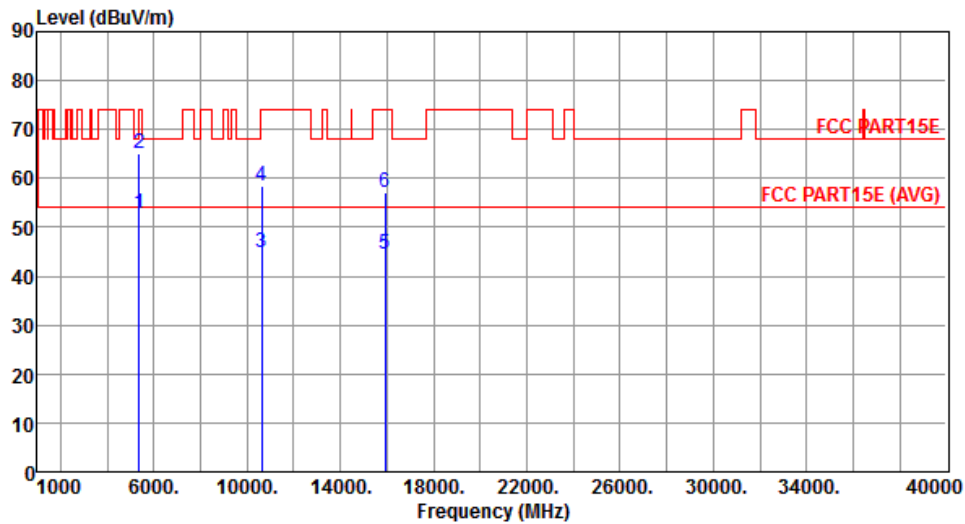
	Freq. MHz	Emission level dBUV/m	Limit dBUV/m	Margin dB	SA reading dBUV	Factor dB	Remark	ANT High cm	Turn Table deg
1	5350.00	48.32	54.00	-5.68	43.68	4.64	Average	256	312
2	5350.00	60.90	74.00	-13.10	56.26	4.64	Peak	256	312
3	10620.00	46.82	54.00	-7.18	32.21	14.61	Average	100	116
4	10620.00	63.83	74.00	-10.17	49.22	14.61	Peak	100	116
5	15930.00	44.72	54.00	-9.28	30.12	14.60	Average	100	259
6	15930.00	57.24	74.00	-16.76	42.64	14.60	Peak	100	259

Note 1: Emission Level (dBUV/m) = SA Reading (dBUV/m) + Factor* (dB)

*Factor includes antenna factor , cable loss and amplifier gain

Note 2: Margin (dB) = Emission level (dBUV/m) – Limit (dBUV/m).

Modulation	VHT40	Test Freq. (MHz)	5310
Polarization	Vertical	Test Configuration	2



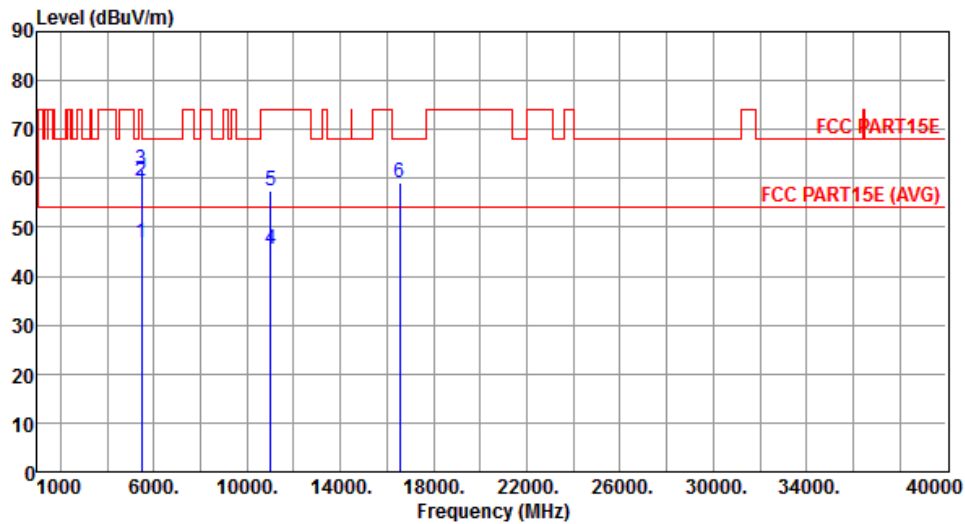
	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	5350.00	52.86	54.00	-1.14	48.22	4.64	Average	248	316
2	5350.00	65.03	74.00	-8.97	60.39	4.64	Peak	248	316
3	10620.00	44.67	54.00	-9.33	30.06	14.61	Average	100	89
4	10620.00	58.52	74.00	-15.48	43.91	14.61	Peak	100	89
5	15930.00	44.43	54.00	-9.57	29.83	14.60	Average	100	148
6	15930.00	56.98	74.00	-17.02	42.38	14.60	Peak	100	148

Note 1: Emission Level (dBuV/m) = SA Reading (dBuV/m) + Factor* (dB)

*Factor includes antenna factor , cable loss and amplifier gain

Note 2: Margin (dB) = Emission level (dBuV/m) – Limit (dBuV/m).

Modulation	VHT40	Test Freq. (MHz)	5510
Polarization	Horizontal	Test Configuration	2



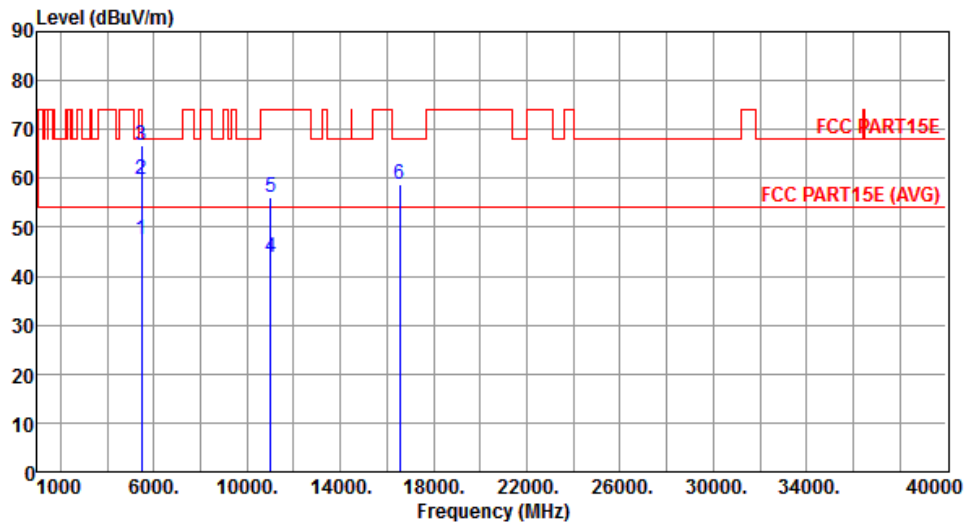
	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	5460.00	46.72	54.00	-7.28	41.94	4.78	Average	274	314
2	5460.00	59.47	74.00	-14.53	54.69	4.78	Peak	274	314
3	5470.00	61.63	68.20	-6.57	56.84	4.79	Peak	274	314
4	11020.00	45.42	54.00	-8.58	30.34	15.08	Average	100	86
5	11020.00	57.33	74.00	-16.67	42.25	15.08	Peak	100	86
6	16530.00	58.96	68.20	-9.24	42.47	16.49	Peak	100	317

Note 1: Emission Level (dBuV/m) = SA Reading (dBuV/m) + Factor* (dB)

*Factor includes antenna factor , cable loss and amplifier gain

Note 2: Margin (dB) = Emission level (dBuV/m) – Limit (dBuV/m).

Modulation	VHT40	Test Freq. (MHz)	5510
Polarization	Vertical	Test Configuration	2



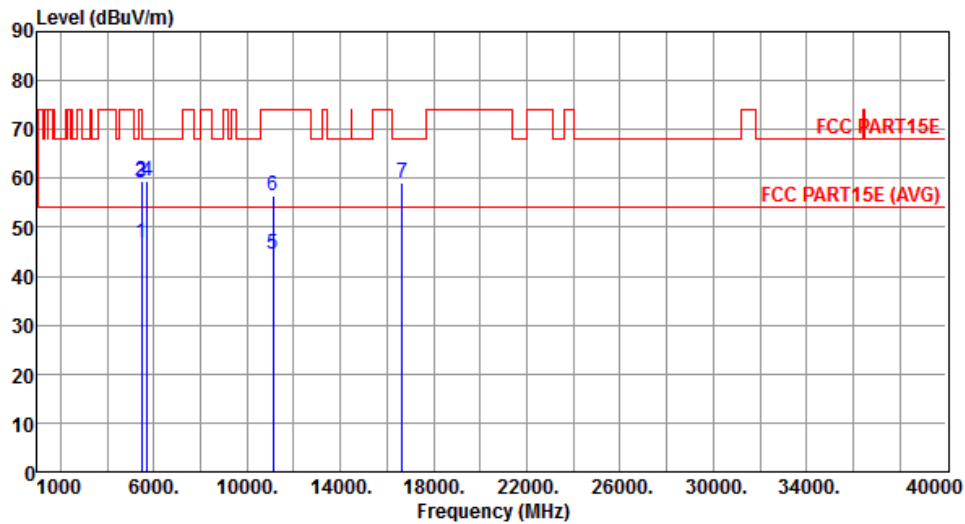
	Freq. MHz	Emission level dBUV/m	Limit dBUV/m	Margin dB	SA reading dBUV	Factor dB	Remark	ANT High cm	Turn Table deg
1	5460.00	47.38	54.00	-6.62	42.60	4.78	Average	266	200
2	5460.00	59.70	74.00	-14.30	54.92	4.78	Peak	266	200
3	5470.00	66.68	68.20	-1.52	61.89	4.79	Peak	266	200
4	11020.00	43.95	54.00	-10.05	28.87	15.08	Average	100	264
5	11020.00	56.28	74.00	-17.72	41.20	15.08	Peak	100	264
6	16530.00	58.79	68.20	-9.41	42.30	16.49	Peak	100	141

Note 1: Emission Level (dBUV/m) = SA Reading (dBUV/m) + Factor* (dB)

*Factor includes antenna factor , cable loss and amplifier gain

Note 2: Margin (dB) = Emission level (dBUV/m) – Limit (dBUV/m).

Modulation	VHT40	Test Freq. (MHz)	5550
Polarization	Horizontal	Test Configuration	2



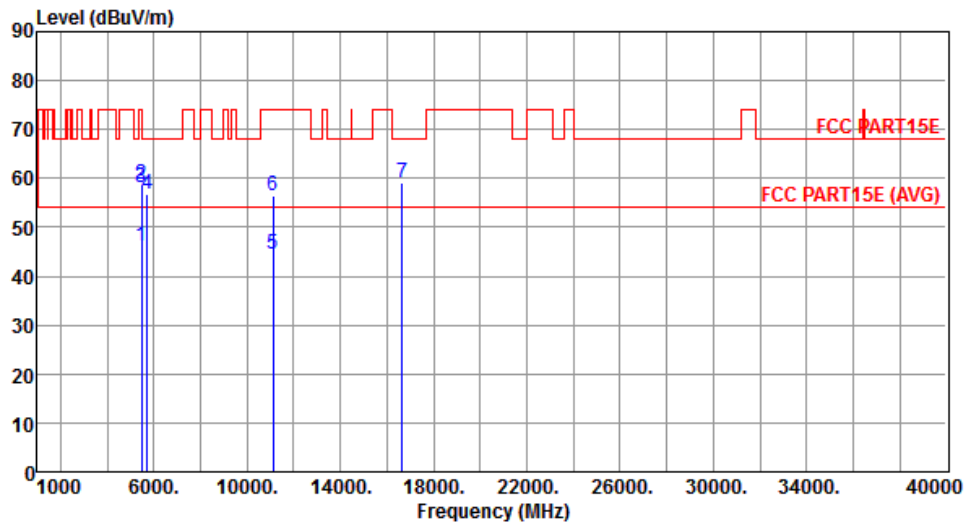
	Freq. MHz	Emission level dBUV/m	Limit dBUV/m	Margin dB	SA reading dBUV	Factor dB	Remark	ANT High cm	Turn Table deg
1	5460.00	46.71	54.00	-7.29	41.93	4.78	Average	255	310
2	5460.00	59.42	74.00	-14.58	54.64	4.78	Peak	255	310
3	5470.00	59.22	68.20	-8.98	54.43	4.79	Peak	255	310
4	5725.00	59.44	68.20	-8.76	54.35	5.09	Peak	255	310
5	11100.00	44.46	54.00	-9.54	29.30	15.16	Average	100	93
6	11100.00	56.31	74.00	-17.69	41.15	15.16	Peak	100	93
7	16650.00	59.23	68.20	-8.97	42.30	16.93	Peak	100	245

Note 1: Emission Level (dBUV/m) = SA Reading (dBUV/m) + Factor* (dB)

*Factor includes antenna factor , cable loss and amplifier gain

Note 2: Margin (dB) = Emission level (dBUV/m) – Limit (dBUV/m).

Modulation	VHT40	Test Freq. (MHz)	5550
Polarization	Vertical	Test Configuration	2



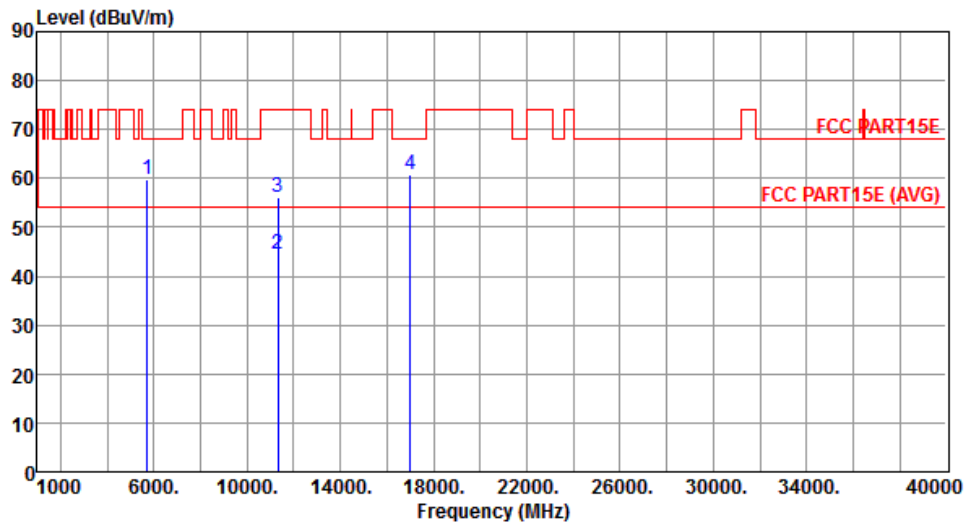
	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	5460.00	46.32	54.00	-7.68	41.54	4.78	Average	285	326
2	5460.00	58.62	74.00	-15.38	53.84	4.78	Peak	285	326
3	5470.00	58.18	68.20	-10.02	53.39	4.79	Peak	285	326
4	5725.00	56.73	68.20	-11.47	51.64	5.09	Peak	285	326
5	11100.00	44.41	54.00	-9.59	29.25	15.16	Average	100	311
6	11100.00	56.56	74.00	-17.44	41.40	15.16	Peak	100	311
7	16650.00	59.25	68.20	-8.95	42.32	16.93	Peak	100	236

Note 1: Emission Level (dBuV/m) = SA Reading (dBuV/m) + Factor* (dB)

*Factor includes antenna factor , cable loss and amplifier gain

Note 2: Margin (dB) = Emission level (dBuV/m) – Limit (dBuV/m).

Modulation	VHT40	Test Freq. (MHz)	5670
Polarization	Horizontal	Test Configuration	2



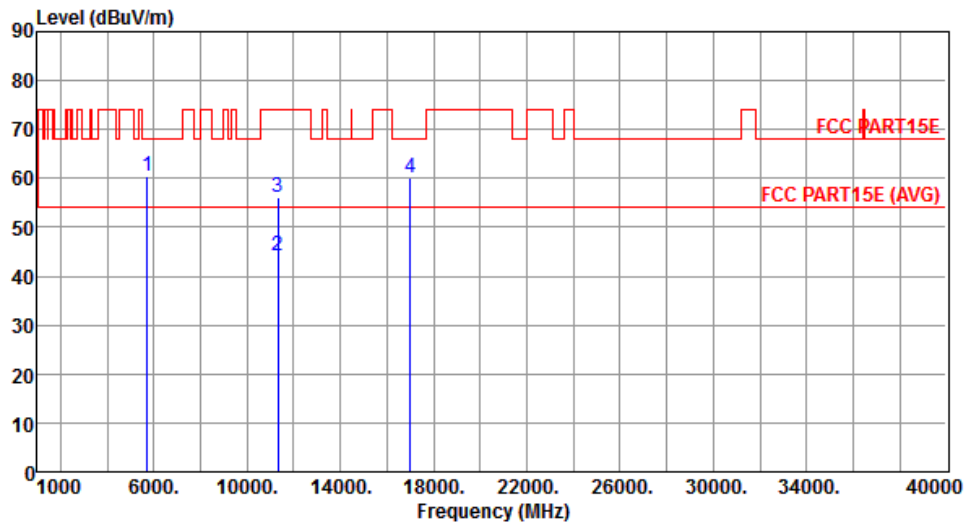
	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	5725.00	59.90	68.20	-8.30	54.81	5.09	Peak	276	334
2	11340.00	44.65	54.00	-9.35	29.26	15.39	Average	100	133
3	11340.00	56.21	74.00	-17.79	40.82	15.39	Peak	100	133
4	17010.00	60.73	68.20	-7.47	42.48	18.25	Peak	100	276

Note 1: Emission Level (dBuV/m) = SA Reading (dBuV/m) + Factor* (dB)

*Factor includes antenna factor , cable loss and amplifier gain

Note 2: Margin (dB) = Emission level (dBuV/m) – Limit (dBuV/m).

Modulation	VHT40	Test Freq. (MHz)	5670
Polarization	Vertical	Test Configuration	2



	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	5725.00	60.58	68.20	-7.62	55.49	5.09	Peak	276	151
2	11340.00	44.28	54.00	-9.72	28.89	15.39	Average	100	322
3	11340.00	56.03	74.00	-17.97	40.64	15.39	Peak	100	322
4	17010.00	60.07	68.20	-8.13	41.82	18.25	Peak	100	155

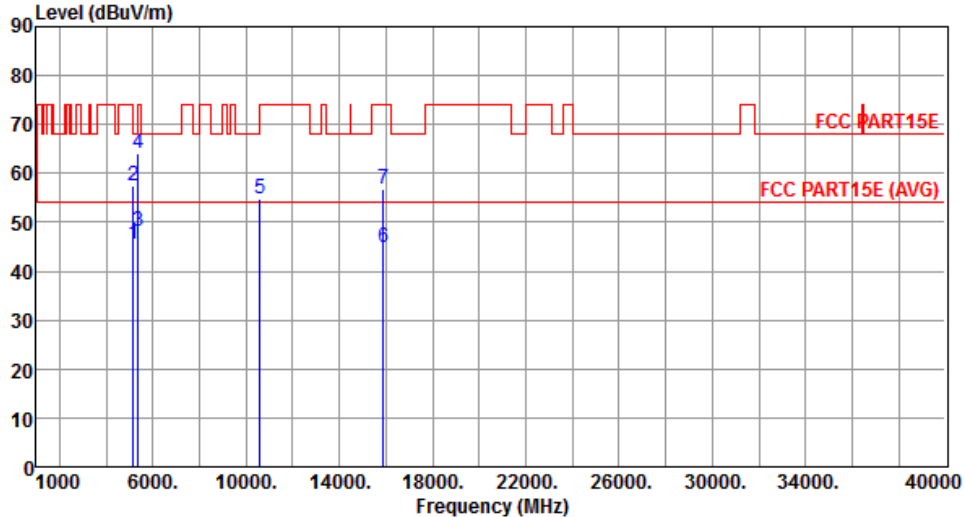
Note 1: Emission Level (dBuV/m) = SA Reading (dBuV/m) + Factor* (dB)

*Factor includes antenna factor , cable loss and amplifier gain

Note 2: Margin (dB) = Emission level (dBuV/m) – Limit (dBuV/m).

3.5.13 Transmitter Radiated Unwanted Emissions (Above 1GHz) for VHT80

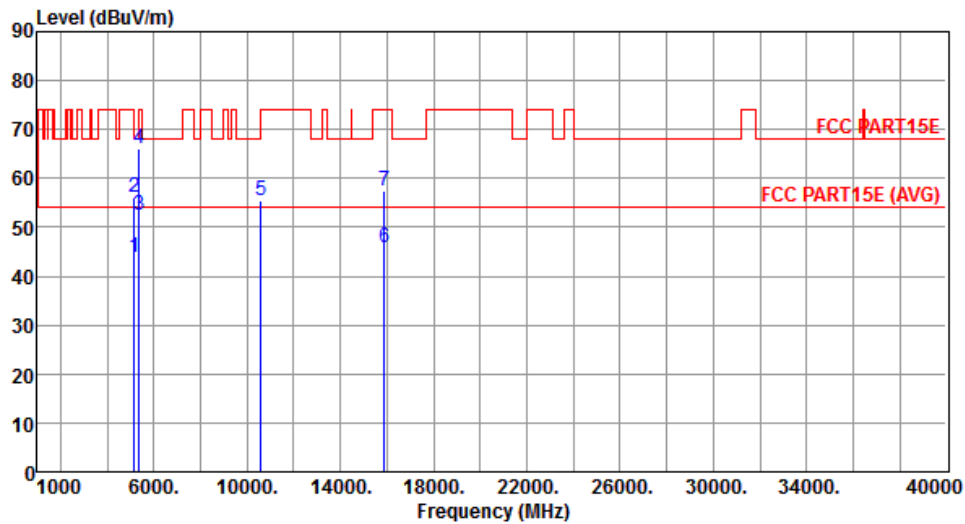
Modulation	VHT80	Test Freq. (MHz)	5290
Polarization	Horizontal	Test Configuration	2



	Freq. MHz	Emission level dBUV/m	Limit dBUV/m	Margin dB	SA reading dBUV	Factor dB	Remark	ANT High cm	Turn Table deg
1	5150.00	45.50	54.00	-8.50	41.10	4.40	Average	266	311
2	5150.00	57.37	74.00	-16.63	52.97	4.40	Peak	266	311
3	5350.00	48.22	54.00	-5.78	43.58	4.64	Average	266	311
4	5350.00	64.16	74.00	-9.84	59.52	4.64	Peak	266	311
5	10580.00	54.92	68.20	-13.28	40.36	14.56	Peak	100	134
6	15870.00	44.93	54.00	-9.07	30.26	14.67	Average	100	301
7	15870.00	56.82	74.00	-17.18	42.15	14.67	Peak	100	301

Note 1: Emission Level (dBUV/m) = SA Reading (dBUV/m) + Factor* (dB)
 *Factor includes antenna factor , cable loss and amplifier gain
 Note 2: Margin (dB) = Emission level (dBUV/m) – Limit (dBUV/m).

Modulation	VHT80	Test Freq. (MHz)	5290
Polarization	Vertical	Test Configuration	2



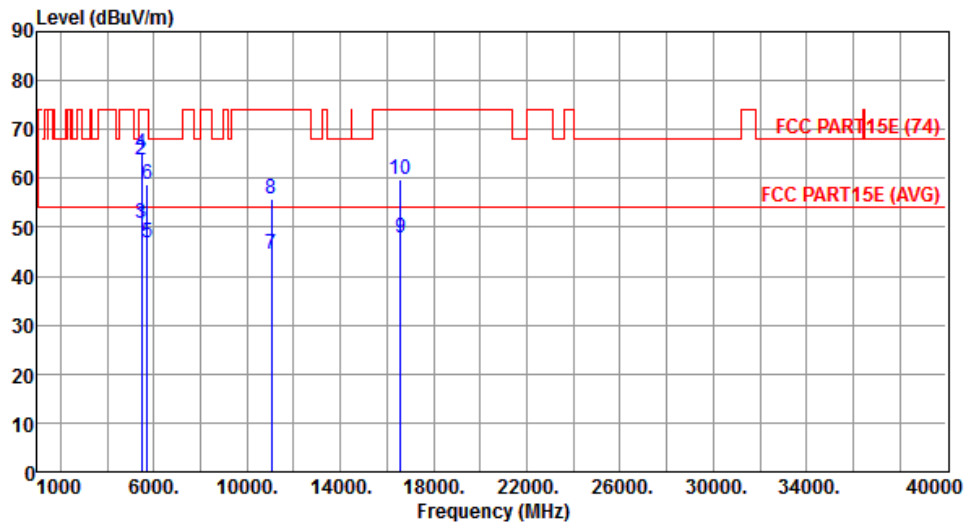
	Freq. MHz	Emission level dBUV/m	Limit dBUV/m	Margin dB	SA reading dBUV	Factor dB	Remark	ANT High cm	Turn Table deg
1	5150.00	43.93	54.00	-10.07	39.53	4.40	Average	251	181
2	5150.00	56.29	74.00	-17.71	51.89	4.40	Peak	251	181
3	5350.00	52.48	54.00	-1.52	47.84	4.64	Average	251	181
4	5350.00	66.03	74.00	-7.97	61.39	4.64	Peak	251	181
5	10580.00	55.53	68.20	-12.67	40.97	14.56	Peak	100	299
6	15870.00	45.96	54.00	-8.04	31.29	14.67	Average	100	117
7	15870.00	57.56	74.00	-16.44	42.89	14.67	Peak	100	117

Note 1: Emission Level (dBUV/m) = SA Reading (dBUV/m) + Factor* (dB)

*Factor includes antenna factor , cable loss and amplifier gain

Note 2: Margin (dB) = Emission level (dBUV/m) – Limit (dBUV/m).

Modulation	VHT80	Test Freq. (MHz)	5530
Polarization	Horizontal	Test Configuration	2



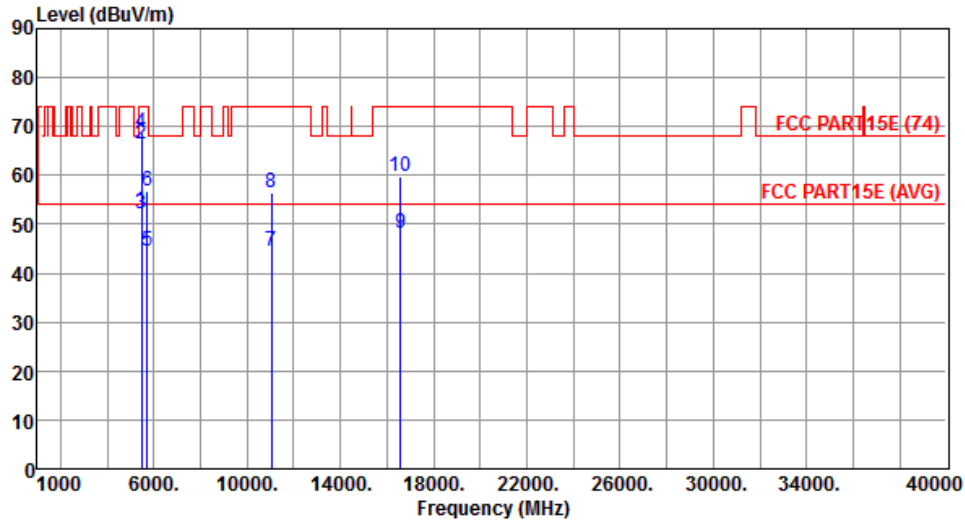
	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	5460.00	50.40	54.00	-3.60	45.62	4.78	Average	267	310
2	5460.00	63.62	74.00	-10.38	58.84	4.78	Peak	267	310
3	5470.00	50.95	54.00	-3.05	46.16	4.79	Average	267	310
4	5470.00	64.95	74.00	-9.05	60.16	4.79	Peak	267	310
5	5725.00	46.89	54.00	-7.11	41.80	5.09	Average	267	310
6	5725.00	58.90	74.00	-15.10	53.81	5.09	Peak	267	310
7	11060.00	44.50	54.00	-9.50	29.39	15.11	Average	100	136
8	11060.00	55.64	74.00	-18.36	40.53	15.11	Peak	100	136
9	16590.00	47.84	54.00	-6.16	31.12	16.72	Average	100	304
10	16590.00	59.93	74.00	-14.07	43.21	16.72	Peak	100	304

Note 1: Emission Level (dBuV/m) = SA Reading (dBuV/m) + Factor* (dB)

*Factor includes antenna factor , cable loss and amplifier gain

Note 2: Margin (dB) = Emission level (dBuV/m) – Limit (dBuV/m).

Modulation	VHT80	Test Freq. (MHz)	5530
Polarization	Vertical	Test Configuration	2



	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	5460.00	52.84	54.00	-1.16	48.06	4.78	Average	296	150
2	5460.00	66.56	74.00	-7.44	61.78	4.78	Peak	296	150
3	5470.00	52.21	54.00	-1.79	47.42	4.79	Average	261	123
4	5470.00	68.66	74.00	-5.34	63.87	4.79	Peak	261	123
5	5725.00	44.60	54.00	-9.40	39.51	5.09	Average	297	194
6	5725.00	56.89	74.00	-17.11	51.80	5.09	Peak	297	194
7	11060.00	44.52	54.00	-9.48	29.41	15.11	Average	100	287
8	11060.00	56.45	74.00	-17.55	41.34	15.11	Peak	100	287
9	16590.00	48.02	54.00	-5.98	31.30	16.72	Average	100	126
10	16590.00	59.71	74.00	-14.29	42.99	16.72	Peak	100	126

Note 1: Emission Level (dBuV/m) = SA Reading (dBuV/m) + Factor* (dB)

*Factor includes antenna factor , cable loss and amplifier gain

Note 2: Margin (dB) = Emission level (dBuV/m) – Limit (dBuV/m).

3.6 Frequency Stability

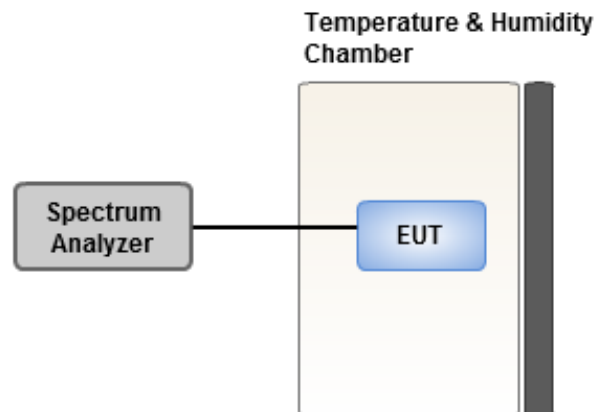
3.6.1 Limit of Frequency Stability

Manufacturers of U-NII devices are responsible for ensuring frequency stability such that an emission is maintained within the band of operation under all conditions of normal operation as specified in the user's manual.

3.6.2 Test Procedures

1. The EUT is installed in an environment test chamber with external power source.
2. Set the chamber to operate at 50 centigrade and external power source to output at nominal voltage of EUT.
3. A sufficient stabilization period at each temperature is used prior to each frequency measurement.
4. When temperature is stabled, measure the frequency stability.
5. The test shall be performed under -30 to 55 centigrade and 85 to 115 percent of the nominal voltage. Change setting of chamber and external power source to complete all conditions.

3.6.3 Test Setup



Test Configuration 1: External Dipole antenna

3.6.4 Test Result of Frequency Stability

Frequency: 5320 MHz	Frequency Drift (ppm)			
Temperature (°C)	0 minute	2 minutes	5 minutes	10 minutes
T20°CVmax	1.23	1.63	1.56	2.05
T20°CVmin	2.06	2.05	2.11	2.41
T55°CVnom	2.04	2.02	2.09	2.39
T50°CVnom	1.97	2.01	2.08	2.34
T40°CVnom	1.92	1.94	2.06	2.31
T30°CVnom	2.08	2.57	2.42	2.33
T20°CVnom	3.51	3.82	3.70	4.27
T10°CVnom	2.57	2.86	2.71	2.65
T0°CVnom	3.70	4.07	3.94	3.99
T-10°CVnom	2.56	2.77	2.54	2.36
T-20°CVnom	2.18	2.90	2.06	2.32
T-30°CVnom	1.68	2.29	2.09	1.94
Vnom [Vac]: 120	Vmax [Vac]: 138			Vmin [Vac]: 102
Tnom [°C]: 20	Tmax [°C]: 55			Tmin [°C]: -30

Test Configuration 2: Internal PIFA antenna

3.6.5 Test Result of Frequency Stability

Frequency: 5320 MHz	Frequency Drift (ppm)			
Temperature (°C)	0 minute	2 minutes	5 minutes	10 minutes
T20°CVmax	0.86	1.59	0.70	0.98
T20°CVmin	0.86	0.86	0.84	1.33
T55°CVnom	0.82	4.70	4.11	2.67
T50°CVnom	3.68	3.54	3.58	4.40
T40°CVnom	1.00	1.01	1.17	1.70
T30°CVnom	2.40	2.58	2.54	2.85
T20°CVnom	4.15	4.25	3.93	4.01
T10°CVnom	4.50	5.08	4.39	5.09
T0°CVnom	3.97	4.07	4.06	4.56
T-10°CVnom	3.14	3.14	3.64	3.78
T-20°CVnom	2.05	2.29	2.07	2.61
T-30°CVnom	2.14	2.70	2.30	2.65
Vnom [Vac]: 120	Vmax [Vac]: 138			Vmin [Vac]: 102
Tnom [°C]: 20	Tmax [°C]: 55			Tmin [°C]: -30

4 Test laboratory information

Established in 2012, ICC provides foremost EMC & RF Testing and advisory consultation services by our skilled engineers and technicians. Our services employ a wide variety of advanced edge test equipment and one of the widest certification extents in the business.

International Certification Corp (EMC and Wireless Communication Laboratory), it is our definitive objective is to institute long term, trust-based associations with our clients. The expectation we set up with our clients is based on outstanding service, practical expertise and devotion to a certified value structure. Our passion is to grant our clients with best EMC / RF services by oriented knowledgeable and accommodating staff.

Our Test sites are located at Linkou District and Kwei Shan Hsiang. Location map can be found on our website <http://www.icertifi.com.tw>.

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Kou District, New Taipei City,
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Kwei Shan

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No. 3-1, Lane 6, Wen San 3rd St.,
Kwei Shan District, Tao Yuan City
333, Taiwan, R.O.C.

Kwei Shan Site II

Tel: 886-3-271-8640

No. 14-1, Lane 19, Wen San 3rd
St., Kwei Shan District, Tao Yuan
City 333, Taiwan, R.O.C.

If you have any suggestion, please feel free to contact us as below information.

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Email: ICC_Service@icertifi.com.tw

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